

WINCHENDON MASTER PLAN



DISCLAIMER

The 2001 Master Plan has been reformatted and organized to make it easier to read and access by the public. Furthermore, it has been updated with respect to events, maps and information available from other sources in the Town, but otherwise has not been modified intentionally from the directions and goals established by the Town of Winchendon in 2001.

The attached document is a pdf version of an html document and as a result does not perform like the source document. Those who are only interested in the current content and organization of the document have most of the information necessary to comment on the new format, and may comment directly to the Communication Committee or the Department of Planning and Development at Town Hall, 109 Front St., Winchendon, MA 01475, Phone (978) 297-3308. However, those interested in more information on the performance of the source document should visit the Planning and Development Department at Town Hall.

MASTER PLAN

TABLE OF CONTENTS:

[Master Module](#)

[Introduction](#)

[Master Module Overview](#)

[Break-Out Module Overviews](#)

[Schedule](#)

[Goals and Approach](#)

[Process](#)

[Values](#)

[Implementation](#)

[Appendices](#)

References

Tools and Metrics

Calculations

Glossary

[Environment Module](#)

[Human Resources](#)

Demographics

[Natural Resources](#)

Forest

Water

Soil

Agriculture

[Open Space](#)

Parks and Recreation

[Land-Use](#)

[Economy Module](#)

[Industrial Expansion](#)

[Tourism](#)

[Circulation](#)

[Intersections](#)

12/202/Blair Square

Tannery Hill

Glenallan Rndbt

Ash/Spring Rndbt

[Social Module](#)

[Communication](#)

[Housing](#)

[Services](#)

[Police](#)

[Fire](#)

[Health](#)

[Education](#)

INTRODUCTION TO THE MASTER PLAN

The approach for this version of the Master Plan has been to honor the 2001 Master Plan and its general direction, which by all indications (viz. polling, survey, committee work and anecdotal evidence) is still satisfactory. However, largely due to the ever-changing world, there were important elements missing and any living document always needs updating. Therefore, the framework for the master plan does not need to be revisited every 5 years, rather sections or MODULES

will be made compliant or reconceived on an as-needed or as-desired basis. The document should thus have each Module as a severable, stand-alone document that can be updated accordingly.

This master plan should also be capable of sending the interrogator to the pertinent information both within the document itself and outside the document, acting as a default [UDO](#), i.e. capable of sending the interrogator to other pertinent documents as well – e.g. the Zoning Bylaw or Subdivision Rules and Regulations. It should be set up as an html document with definitions and cross-referencing as a routine part of any query.

This version the 2005-2006 Update Master Plan, was intended principally to recreate the 2001 Master plan in this new modular electronic format. There was no attempt within this document to take new initiatives or directions other than the formatting, though with as much updated information and mapwork as was already available thanks to other related work within the Town (e.g. Master Plan 2005 Implementation Update, Open Space and Recreation Plan 2006, 2006 Zoning Revision, etc.). In other words, this is only an administrative update. Further Town-driven updates are planned for each module as per the [schedule](#) below.

MASTER MODULE:

The master module is intended to serve as the master planning document discussing overview of the town as a whole, background elements, approach, schedule, direction-setting and so forth. It should be revisited as a separate module just as the break-out modules are. Organization of this, the Master Module, is as follows: [Introduction](#), Overview of the [Break-Out Modules: Environment](#) (foundations), [Economy](#), [Social](#), [Goals and Approach](#), [Schedule](#), [Implementation](#). There are three break-out modules as well: [Environment](#), [Economy](#) and [Social](#). Performance will be measured and communicated (see [Communication](#)) to accountably track performance of the Town with respect to the goals of the Master Plan. All Modules are cross-linked using html links.

BREAK-OUT MODULES:

[Environment](#)

The Environment Module shall treat the natural and built environment and the resources of which they are composed. Winchendonians have expressed in several feedback media that they prefer preserving a rural character for the town. By that they express that there will be more greenspace than builtspace, more working and passive landscapes than idle and active landscapes, and less carload and transit intensity than pedestrian load and trailways.

Most of the elements of the Environment Module have already been updated, viz. the recent rewrites of the Zoning Bylaw and the Open Space and Recreation Plan (OSRP). Thus, even though no document can ever be completely up-to-date, this module is moreso than the others. Consequently, no major revision for this module is planned for at least two years, unless merited by yet-to-come situations, once the update (i.e. non-administrative one) is completed in 2007.

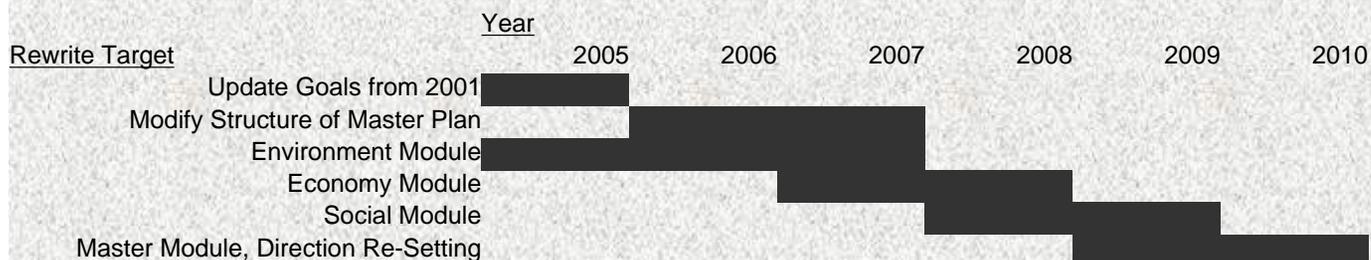
[Economy](#)

The Economy Module shall treat the local economy and its principal requirements such as circulation. The Winchendon economy revolves around several target nodes and development patterns, mostly water-centered with greenways traversing the municipal boundaries. A vibrant business community based on [SMEs](#) and regional scale networking is envisioned, taking advantage of the scale and resources and rural nature of the town. To address the future, the focus shall entail sustainable technologies and resources, primarily accessing the historical strengths of the town and channeling them into forward-looking versions of the same contributions (cf. furniture, primary resource processing, hydropower, history/nature tourism).

[Social](#)

The Social Module shall look at Winchendon's needs as a society, looking at public services and functions. Winchendon seeks to provide more amenities and services more cost-effectively than ever before, while catering to a diverse demographic base.

Schedule/Time Frame:



Goals for and Approach to the Master Plan

The goals and policies statement identifies the goals and policies of the municipality for its future growth and development. Each community shall conduct an interactive process, to determine community values, goals, to identify patterns of development that will be consistent with these goals.

(Goals and objectives for each of the required elements of this plan are contained within the respective elements in the [Implementation](#) section.)

Interactive Process

The Planning Board hosted a Master Plan charrette on October 9, 1999 as the kick-off to the development of this Master Plan. Dr. John Mullin of U Mass facilitated the charrette and the attending group determined the strengths and weaknesses of the Town, identified possible threats to the community, and listed opportunities on which the Town might capitalize. Dr. Mullin summarized the results in writing. A second charrette was held in November 1999 for the middle and high school students. Also in November 1999, the Planning Board mailed a survey to every household in Town. 432 completed surveys were returned to the Planning Board. The results were electronically summarized and presented to the Town over the local cable channel in March 2000. A two-part series of workshops were held in April 2000. Participants defined the “character” of Winchendon, defined “rural”, and determined goals and objectives for the required elements of the Plan. Writing of the Plan began in June 2000. As each element was completed, copies of it were placed in the library and the Town Clerk’s office for public review and comment. Copies were also sent to each of the Select Board members and to the Winchendon Courier. The [Implementation](#) element was the result of a joint meeting between the Planning Board and the Select Board. Goals and objectives from the completed elements were prioritized, funding amounts and mechanisms assigned, and a timeline created.

Community Values

Community values expressed by participants in the interactive process were summarized by Dr. Mullin in the “Summary of the Winchendon Charrette”. They are summarized here as follows:

- Ineffective zoning enforcement must be corrected immediately. (This was the most significant issue raised at the charrette.)

- The participants desire greater board integration.
- The Town needs to expand its outreach efforts to prevent apathy, prevent the appearance of cliques, and to gain support for a common mission/vision statement.
- The Town should take a hard look at how it is growing. The participants overwhelmingly believe that residential growth is occurring too rapidly and without an emphasis on quality.
- There is strong support for growth management controls.
- There is concern that the tax burden is falling too heavily on residential property owners.
- There is strong support for all “Toy Town” activities.
- There is great concern for youth activities.
- The participants strongly support the Master Plan concept.
- Winchendon wants quality.

Preservation Policy

In the expenditure of Town funds, town planning and regulatory efforts, Winchendon’s governing and related organizations will endeavor to preserve and protect vital Town interests. Among these are our rural character, our natural resources, our educational system, our labor, our historic heritage, our existing agricultural operations, and our downtown/main street.

Patterns of Development

Future development will be directed to follow the pattern of a traditional New England development. High densities will be encouraged in village centers where services are available. Density levels will decrease with increasing distance from village centers. Mixed uses shall be encouraged, particularly in the villages to promote community cohesiveness. Heavy industrial uses will remain segregated from all other types of uses. Residential development shall be balanced with other uses so as not to overwhelm the Town’s resources. Open spaces shall be preserved for aesthetic, environmental, and economic purposes.

Implementation (Administrative Update 2005)

“... to be successful, planning has to be made a meaningful part of our political process. Electing anyone who has not made it clear that he or she stands foursquare for effective community planning is like inviting the fox into the chicken coop. If our communities are not to be bankrupted by wasteful and uncoordinated development, we must have workable, practical plans for the future. If we are not to be overwhelmed by man-made ugliness, inefficient and

uneconomical community structures, we must see to it that our plans are implemented and that they work.”

Herbert Smith, “The Citizen’s Guide to Planning”, 1993

This element defines and schedules the specific municipal actions necessary to achieve the objectives of each element of the master plan. Scheduled expansion or replacement of public facilities or circulation system components and the anticipated costs and revenues associated with accomplishment of such activities shall be detailed in this element. This element shall specify the process by which the municipality’s regulatory structures shall be amended so as to be consistent with the master plan.

MASTER PLAN AND DIRECTION SETTING

Implementation strategies for each objective are written with the following format:

- (a) the year in which implementation of the objective will begin; in some cases, the completion date has been given
- (b) the agency responsible for implementation of the objective
- (c) financial strategy that will be required to implement the objective, if necessary.

Natural Resources Goal

OBJECTIVES

1. Utilize all available funding sources, (e.g. EOEAs Self- Help and Urban Self-Help Programs, and the Land and Water Conservation Funds) to preserve, protect, enhance, and/or rehabilitate the Town’s natural resources.
 - ü **2002-2003 Town negotiating creative resolutions to Chapter 61 sales that result in increased protected open space that is either town owned or privately held with**

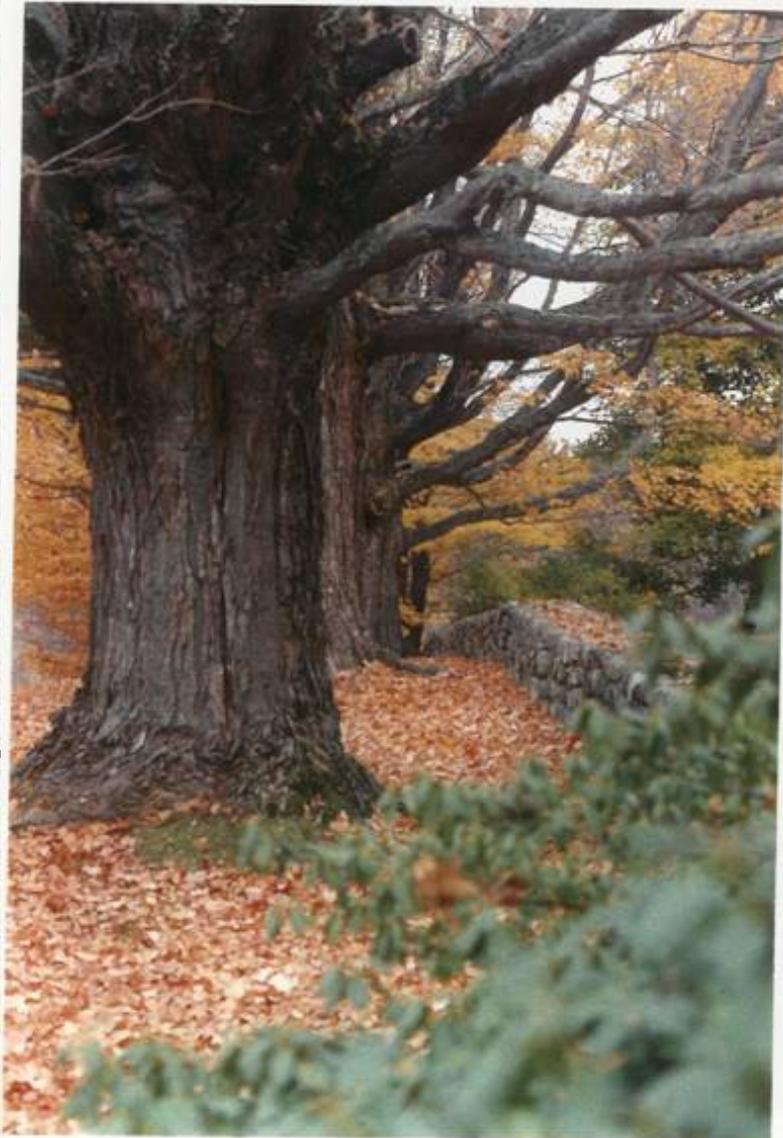
conservation restrictions.

- ü **2004- Town Meeting passed Open Space Fund bylaw to establish a revenue stream to purchase open space for preservation and or recreation purposes.**
- ü **2005- Currently negotiating a Chapter 61 sale issue.**

2. Work to preserve, protect, enhance, or rehabilitate the biodiversity of our local ecosystems.

2001; Conservation Commission, Community Development; (Complete) 2003 Fall Town Meeting; no additional funding needed

- ü **2005- Open Space Plan being reviewed and renewed.**



3. Work with the Council on Invasive Species to establish a program to control invasive species on municipal lands and throughout the Town.
2001; Conservation Commission, Community Development; (Complete) 2003 Fall Town Meeting; no additional funding to do initial research; establishment of the program may require funding from the Town's operating budget

ü **2004-2005 Converse Garden plan calls for removal of all of the invasive species currently choking out the town owned land along the banks of the Miller's River along the garden site on Front Street..**

4. Evaluate the Town's use and storage of salt as a road de-icer. Ensure maximum efficiency in its application, minimizing adverse environmental impacts to roadside vegetation and adjacent wetlands.

2001; Conservation Commission, Community Development; (Complete) 2003 Fall Town Meeting; no additional funding needed

5. Prohibit deposit of used street sand into the Town's surface waters.

2001; Conservation Commission, Community Development; (Complete) 2003 Fall Town Meeting; no additional funding needed

ü **2002-2005 Being assured.**

Forest Resources Goal

OBJECTIVES

6. Promote measures that encourage owners of large forested tracts to avoid fragmentation or subdivision of forested areas.

2002; Conservation Commission, Planning Board; (Complete) 2003; no additional funding needed

7. Support local, State and Federal programs and funding which will encourage landowners to retain managed forestlands.

2002; Conservation Commission, Planning Board; (Complete) 2003; no additional funding needed

ü **2004-2005 Supporting the Commonwealth's DCR in its efforts to purchase conservation restrictions on over 800 acres of forestland in our town boundaries.**

8. Encourage awareness of the Town's urban trees through an "adopt-a-tree" program with the Town's elementary schools.

2001; Conservation Commission, School Committee; no additional funding needed

9. Continue and expand the tree-planting program funded by the Conservation Commission.

2001; Conservation Commission, School Committee; funding through annual operating budgets of both the Conservation Commission and the School Committee

ü **2004- MassRelief grant sought and awarded for tree plantings along the parking lot to the North Central Pathway.**

ü **2005- MassRelief grant sought and awarded for the replacement of some historic maples in Old Center.**

10. Implement forest ecology education in our school system.

2001; Conservation Commission, School Committee; school department budget

11. Ensure sustainable management through replanting whenever cutting occurs for development. Require “Best Management Practices” in all development requiring tree cutting.

2002; Planning Board; no additional funding needed

12. Encourage compatible uses of forestlands for recreation, tourism and economic benefit where such uses will not impair forest quality or wildlife and/or forest habitat.

- ü **2004-2005 Preliminary work being done on conceptual plans for an Animal Control Facility with a Wildlife Rehabilitation component on the Town owned forest on Town Farm Road to serve our domestic and wild animal populations while simultaneously creating an educational/tourist destination with a public trail system.**

13. Avoid the use of single species or non-native species in development site plans and Town landscaping projects – promote diversity and the use of native, drought resistant species.

2002; Planning Board, Conservation Commission, DPW; no additional funding needed

Agricultural Resources Goal:

OBJECTIVES

14. Support efforts to create and promote “agri-tourism”.

2002; Toy Town Partnership, Winchendon Enrichment Foundation, Community Development; grant monies may be available for these efforts

- ü **2004-2005 Heritage Mills Project**
- ü **2005- Sought and received inclusion in the Freedom’s Way Heritage Corridor.**

15. Support local agricultural operations through a “buy local” campaign.

2002; Toy Town Partnership, Winchendon Enrichment Foundation, Community Development; see #35

16. Inventory prime agricultural soils and preserve them for future needs.

- ü **2002- Negotiated a Conservation Restriction on a land parcel identified as containing prime agricultural soils to save it from development.**

17. Form a local land trust to preserve farmlands.

2002; Planning Coordinator; no additional funding needed

- ü **2004-2005 Heritage Mills Project contemplates such a trust.**
- ü **2005- Town manager set to announce the creation of Heritage Commission and Local Land Trust Commission.**

18. Promote agricultural education in the school system, raising the level of awareness of food sources and production techniques.
2001; Conservation Commission, School Committee; no additional funding should be needed

19. Encourage environmentally responsible, sustainable agricultural operations in Town.
2002; Planning Coordinator; no additional funding needed

ü **2004-2005 Heritage Mills Project contemplates such operations**

Earth Mineral Resources Goal

OBJECTIVES

20. Inventory viable gravel and other earth mineral resources in Town.
2002; Planning Coordinator; no additional funding needed

21. Ensure that extraction occurs only in areas where there will be the least conflict with surrounding land uses.
2002; Zoning Board, Building Inspector; no additional funding needed

ü **2001-2005 strict enforcement of our gravel and earth materials bylaws.**

22. Ensure timely reclamation of extraction sites, for uses which are in harmony with the surrounding land uses.
2002; Zoning Board, Building Inspector; no additional funding needed

23. Restore existing unreclaimed sites to safe, environmentally sound and aesthetically pleasing uses.
2002; Zoning Board, Building Inspector; this objective will require development of an inventory of unreclaimed sites, identification of current ownership; and legal responsibilities of owners under the law. An estimated \$3,000 for legal opinion of responsibilities should be appropriated through the Town Manager's budget.

Water Resources Goal:

OBJECTIVES

24. Develop a comprehensive water resources plan which will maintain a balanced "water budget".
2001; Board of Selectmen; ongoing, no additional funding needed

25. Reduce nonpoint source pollution by reducing the amount of impermeable surfaces in Town and limiting the use of fertilizers on the Town's green areas.
2002; Planning Board, Zoning Board, DPW; no additional funding needed

ü **2001-2005.**

26. Ensure separation of stormwater and wastewater collection systems to prevent discharges into the Millers River.

ü **2003-2005- Completed with the Wastewater Treatment Plant upgrade.**

27. Reduce road salt usage and provide secure storage of stockpiles to prevent leaching.

2001; DPW, Conservation Commission; annual operating funds if needed

28. Upgrade the wastewater treatment facility to meet current and projected needs.

ü **2003-2005- Completed with the Wastewater Treatment Plant upgrade.**

49a. Develop a Capital Improvements Program, ensuring timely repairs and upgrades to the wastewater treatment system.

ü **2002- Developed Policy for approval by the Planning Board, the Finance Committee and the Board of Selectman. Approved.**

ü **2003- Implemented and funded long term, rolling five-year capital planning process with the FY04 town budget. Town meeting funded it.**

ü **2004- Town meeting funded year two.**

ü **2005- Town meeting funded year three.**

29. Protect areas which serve as water supplies in the future – particularly land overlying potentially productive aquifers – through acquisition or zoning, and other regulations which restrict incompatible uses.

2003; Planning Board, Board of Health; zoning and regulatory changes can be funded through the Planning Board's annual budget; acquisition costs would have to come from Town Meeting allocation

30. Ensure proper disposal of waste oils at the Town garage.

2001; Board of Health, DPW; no additional funding needed

ü **2001-2005- Ongoing.**

31. Continue Hazardous Household Waste collection efforts.

ü **2002- Utilized pre-existing appropriation to hold annual day.**

ü **2003- Held day.**

ü **2004- Held day.**

ü **2005- Held day.**

32. Promote use of native drought resistant plant species in site plans and Town landscaping projects.

2002; Planning Board, DPW; no additional funding needed

33. Finish groundwater mapping, providing a complete picture of the Town's aquifers.

2002; Planning Coordinator; Engineering costs will require a Town Meeting appropriation

34. Ensure that lot sizes reflect the type of soil present and its ability to absorb wastes without polluting water supplies or adjoining waters.

(Complete) 2004; Planning Board, Board of Health; no additional funding needed

35. Conduct an inventory of hazardous waste generators in Town. Ensure the proper disposal of wastes being generated.

ü **2004- Town meeting passed a Hazardous Materials bylaw.**

36. Ensure that commercial development is properly sited and that hazardous materials and wastes are properly handled.

ü **2004- Town meeting passed a Hazardous Materials bylaw.**

Wildlife Resources Goal

OBJECTIVES

37. Establish a Local Species and Habitat Registry, maintained by the Conservation Commission for use in local land use permitting and open space planning.

2001; Conservation Commission; purchase of materials may be necessary

38. Promote subdivision designs, which reduce habitat fragmentation.

2001; Planning Board; no additional funding needed

- ü **2003- Flexible Development Bylaw prepared and publicly heard.**
- ü **2004- Flexible Development Bylaw presented and passed at Town Meeting.**
- ü **2005- Golf Residential Overlay District presented and passed at Town Meeting.**
- ü **2005- Zoning Task Force in place and reviews underway**

39. Promote healthy habitats through appropriate land uses, sound waste management practices, and environmental awareness.

2003; Planning Board, Zoning Board, Conservation Commission, Board of Health; (Complete) 2005; no additional funding needed

Wetlands Goals

OBJECTIVES

40. Promote public awareness of wetlands values. Encourage school students to assist in the certification of vernal pools.

2002; School Committee, Conservation Commission; no additional funding should be needed

41. *Ensure development regulations promote wetland preservation and integrity.*

2001; Conservation Commission, Planning Board; no additional funding should be needed

Soils Goals

OBJECTIVES

42. Develop and enforce an erosion control bylaw to prevent unnecessary loss and improper movement of soil.

2001; Planning Board, Board of Selectmen, Building Inspector; no additional funding should be needed

43. Soil types shall be identified on any parcel to be developed using the most current soils map overlays that the Town owns.

2002; Planning Board, Building Inspector, Zoning Board; no additional funding should be needed

Open Space Goals (Summarized from OS&RP, 1999)

OBJECTIVES

44. Regulate inappropriate land uses to avoid or mitigate loss of water quality or wildlife habitats.

(Complete) 2003; Planning Board; no additional funding should be needed

ü **2005- Open Space Plan being reviewed and renewed.**

45. Prioritize open spaces considered for preservation. Criteria should be based on level of contribution to biological and ecological diversity; water supply and water quality; aesthetics and recreation; community character; and agricultural lands.

2002; Planning Coordinator; no additional funding should be needed

ü **2005- Open Space Plan being reviewed and renewed.**

46. Identify scenic roadways and corridors that will aid in the protection of open spaces. Then adopt a local corridor district in the general bylaws and a scenic roadway bylaw in the zoning bylaws to regulate development along these declared scenic roadways and corridors.

2002; Planning Coordinator; no additional funding should be needed

ü **2005- Zoning Task Force in place and reviews underway**

47. Protect the Town's working farms from development.

2002; Planning Coordinator; no additional funding should be needed

ü **2004-2005 Heritage Mills project working to connect the Murdock Farm into the plan scope.**

48. Develop a linked system of open spaces and recreation, integrating activities where appropriate.

ü **2001-2005 Bike Trail continues to be developed with Robinson Broadhurst, state and federal funds.**

49. Seek funding sources and alternative, low-cost means for protection of environmentally sensitive areas.

2003; Planning Coordinator, Community Development; no additional funding should be needed

ü **2004- Town Meeting passed a bylaw that created a revenue stream for the purchase/preservation of open space.**

50. Establish a fund for purchase of (a) tax title lands and (b) development rights on parcels that meet the criteria for open space preservation.

ü **2004- Town Meeting passed a bylaw that created a revenue stream for the purchase/preservation of open space.**

51. Modify zoning bylaws to encourage styles of development that will preserve open space.

ü **2004- \$30,000 appropriated at Town Meeting to revise Zoning By-laws.**

ü **2005- Zoning Task Force in place and reviews underway**

52. Modify zoning bylaws to regulate inappropriate uses on lands that are adjacent to surface waters, are located in watersheds to important surface waters, and those that overlie known aquifers and their recharge zones. The industrial zoning district in the southeast part of the Town is known to overlie the protective district for the city of Gardner's Crystal Lake water source. This may need to be modified to prevent degradation of this resource. Similarly, the Zone II for some of Templeton's public wells extends into Winchendon. The effects of the overlying zoning should be examined and modified if necessary.

ü **\$30,000 appropriated at Town Meeting to revise Zoning By-laws.**

ü **2005- Zoning Task Force in place and reviews underway**

53. Transfer ownership of the Town forestland on Town Farm Road to the Winchendon Conservation Commission for the purpose of conservation and preservation.

(Complete) 2001 Fall Town Meeting; Conservation Commission; legal expenses should come from Town Manager's legal budget

54. Any new lands that the Town acquires for protected open space or recreation should be transferred to the Conservation Commission.

(Complete) 2001 Fall Town Meeting; Conservation Commission; legal expenses should come from the Town Manager's legal budget

55. Establish a local land bank or community land trust as authorized under the Community Preservation Act.

2002; Planning Coordinator (see #38 and #71)

56. Encourage the Winchendon School system to become involved with the Outdoor Classroom Program offered by the Executive Office of Environmental Affairs.

2001; School Committee; no additional funding should be needed

Parks and Recreation Goals [updated from OSRP 2006]

OBJECTIVES

115. Provide public access to major water bodies in Town.

2002; Recreation Commission; funds should come from Community Preservation Act, private funding, and appropriation from Town Meeting

ü **2003-2005- Bike Trail from Glenallen to the Clark along Whitney's Pond funded and construction scheduled.**

ü **2003-2005- Robinson-Broadhurst funding has been sought and received for the pursuit of purchase of two parcels of land on the shoreline of Whitney Pond adjacent to the Bike Trail just behind the Brass Pineapple for passive park space.**

116. Identify and target future land acquisitions or easements to provide public access to major water bodies in Town.

2002; Recreation Commission; same as #115

ü **2004-2005- Tax Title Auction of parcels with this as a focus.**

117. Develop and maintain recreational improvements, such as a Town beach, the North Central Pathway, and a landing at Lake Monomonac.

ü **2001-2005- Bike Trail continues to be developed with Robinson Broadhurst, state and federal funds.**

ü **2004- Flexible Development Site Plan approval creating public recreation field.**

ü **2003-2005- Robinson-Broadhurst funding has been sought and received for the pursuit of purchase of two parcels of land on the shoreline of Whitney Pond adjacent to the Bike Trail just behind the Brass Pineapple for passive park space.**

ü **2004-2005- Tax Title Auction of parcels with this as a focus.**

118. Target future land acquisitions that serve as linkages.

2002; Conservation Commission, Recreation Commission; same as #115

119. Identify and implement non-acquisition means of linkage such as conservation easements.

2002; Conservation Commission, Recreation Commission

ü **2002-2003 Town negotiated creative resolutions to Chapter 61 sales that result in increased protected open space that is either town owned or privately held with conservation restrictions.**

- ü **2004- Town Meeting passed Open Space Fund bylaw to establish a revenue stream to purchase open space for preservation and or recreation purposes.**

- ü **2005- Currently negotiating a Chapter 61 sale issue.**

120. Establish a trail system on Town land, possibly through a youth summer work program.

- ü **2004-2005 Preliminary work being done on conceptual plans for an Animal Control Facility with a Wildlife Rehabilitation component on the Town owned forest on Town Farm Road to serve our domestic and wild animal populations while simultaneously creating an educational/tourist destination with a public trail system.**

121. Develop a park for teen skateboarding, inline skating, and non-motorized biking.

2001; Recreation Commission; private funds; town-donated lands; site work by DPW

122. Continue to work with the Clark Memorial to improve existing recreational facilities.

- ü **2001-2005- Ongoing.**

123. Continue to develop a neighborhood playground system to improve availability and access for users, especially children.

- ü **2004- Flexible Development Site Plan approval creating public recreation field.**

- ü **2003-2005- Robinson-Broadhurst funding has been sought and received for the pursuit of purchase of two parcels of land on the shoreline of Whitney Pond adjacent to the Bike Trail just behind the Brass Pineapple for passive park space.**

124. Continue to expand the availability of athletic fields and other facilities, including a fitness course, while keeping maintenance within a limited budget.

- ü **2004- Flexible Development Site Plan approval creating public recreation field.**

- ü **2004- Preliminary work being done on conceptual plans for an Animal Control Facility with a Wildlife Rehabilitation component on the Town owned forest on Town Farm Road to serve our domestic and wild animal populations while simultaneously creating an educational/tourist destination with a public trail system.**

- ü **2001-2004- Bike Trail continues to be developed with Robinson Broadhurst, state and federal funds.**

- ü **2003-2005- Robinson-Broadhurst funding has been sought and received for the pursuit of purchase of two parcels of land on the shoreline of Whitney Pond adjacent to the Bike Trail just behind the Brass Pineapple for passive park space.**

125. Continue to reassess needs of residents (including elderly persons and persons with handicaps) for additional activities, and develop specific programs to meet these needs.

- ü **2001-2004- Bike Trail continues to be developed with Robinson Broadhurst, state and federal funds. Section from Glenallen to the Clark will be handicapped accessible and will serve as an extension of the Clark's walking path which is utilized by a significant elderly population.**

- ü **2005- Feasibility study underway for a Senior Center at Old Murdock.**

126. Identify funding sources for developing recreational facilities.

- ü **2003- Flexible Development Bylaw prepared and publicly heard.**

- ü **Flexible Development Bylaw presented and passed at Town Meeting.**

- ü **2004- Town Meeting passed Open Space Fund bylaw to establish a revenue stream to purchase open space for preservation and or**

recreation purposes.

Land Use Goals

OBJECTIVES

57. Current subdivision regulations should be amended to require conservation subdivision design. Clustering of new residential units should be required with residual land set aside as permanent open space.

- ü **2003- Flexible Development Bylaw prepared and publicly heard.**
- ü **2004- Flexible Development Bylaw presented and passed at Town Meeting.**
- ü **2005- Golf Residential Overlay District presented and passed at Town Meeting.**
- ü **2005- Zoning Task Force in place and reviews underway.**

58. Minimum lot size requirements in the zoning bylaws should be amended to conform to the existing landscape.
2001; Planning Board; (Complete) Fall Town Meeting 2001; funding should come from the regular Planning Board budget

- ü **2005- Zoning Task Force in place and reviews underway.**

59. Every effort should be made to be creative with the zoning bylaws. Numerous techniques exist that will allow retention of rural character and open space while also accommodating projected growth needs and the Town should remain open-minded when considering their respective uses.

- ü **2003-2004- \$30,000 appropriated at Town Meeting to revise Zoning By-laws.**
- ü **2004- Mill Overlay Bylaw Passed at Town Meeting- to encourage reuse of existing previously developed land.**
- ü **See #1 above.**
- ü **2005- Zoning Task Force in place and reviews underway.**

60. Research the Town for suitable sites for growth centers.

2002; Planning Board; funding should come from the regular Planning Board budget; some printed training materials may be needed

- ü **2005- Zoning Task Force in place and reviews underway.**
- ü **2004- Town was awarded grant from the Urban Land Institute for a study of our town and specifically our downtown as a growth area.**
- ü **2005- Final Report from ULI due in Mid-July.**

61. Balance the amount of residential land use with open space, agriculture, industry, and commercial land uses.

2002; Planning Board; funding should come from regular Planning Board budget

- ü **2005- Zoning Task Force in place and reviews underway.**

Economic Development Goal

OBJECTIVES

62. Support community development and revitalization efforts of the Community Development office, the Toy Town Partnership, and the Winchendon Enrichment Foundation.
 - ü **2001-2003- Community Development office, now Development and Planning Office, fully restructured and re-staffed. Increased staff and service through re-allocation of existing resources.**
 - ü **2003- Fulltime staff person provides planning board support, land-use trained part-time clerical staff supports both ZBA and Planning Board for consistency.**
 - ü **2005- Town Manager attends TTP meetings and appoints members.**
 - ü **2005-TTP and Enrichment Foundation being reviewed as agents/entities to carry out the Converse Gardens project.**

63. Increase the value potential of the available labor force by providing additional educational and/or vocational opportunities within the Winchendon area.

64. Continue to encourage and support public transportation links to educational, training, and job opportunities.
 - ü **2002- Work with Representative Knuttilla on re-establishing commuter rail service to Boston in Gardner.**
 - ü **2003- Participants in Congressman Olver's "Northern Tier" and regional transportation symposium.**
 - ü **2004-2005- Working with Devens Commerce Center and MART regarding potential labor transportation shuttles to the industrially developed Devens Commerce Center.**

65. Develop low impact, environmentally sensitive recreational facilities on Town owned parcels at Whites Mill Pond.
 - ü **2004-2005 Tax title lands adjacent to White's Mill proposed for passive recreational link to a potential bike trail spur linking main trail, veteran's cemetery and the pond.**

66. Clean up Whitney Pond and pursue efforts to develop recreational opportunities at the Pond.
 - ü **2003-2004- Bike Trail from Glenallen to the Clark along Whitney's Pond funded and construction scheduled.**
 - ü **2003-2005- Robinson-Broadhurst funding has been sought and received for the pursuit of purchase of two parcels of land on the shoreline of Whitney Pond adjacent to the Bike Trail just behind the Brass Pineapple for passive park space.**
 - ü **2001-2005- Sewer Infiltration and Inflow work is ongoing to reduce the introduction of wastewater getting into the waterway.**
 - ü **2001-2005- Wastewater Plant upgrade was designed to allow for additional capacity to include Maple Street and the Springs. This would require the sewer infrastructure to be extended.**
 - ü **2004- Town Meeting passed a recreational ice racing bylaw that includes Whitney's Pond.**
 - ü **2004-2005- ULI study and report.**
 - ü **2001-2004- Title Five Program is still in progress and available.**
 - ü **2005- Title Five program funds being sought to re-establish the program.**
 - ü **2005- Heritage Mills project moving forward.**

67. Improve appearance of the Town's gateways.

68. Improve parking availability in the downtown business district through land acquisition, cooperative agreements, etc.
 - ü **2003- MRPC conducted a "Downtown Parking Study" and determined that capacity is sufficient and that striping would be of benefit.**
 - ü **2004-2005 Downtown parking striping project being pursued through Development Office, TTP and DPW.**

ü **2004-2005 Tiered parking plan opposite Pleasant Street at Front Street designed and funds being sought.**

69. Restore, protect and provide better access to the Millers and Otter Rivers.

ü **2001-2004- With the Wastewater project completion we have removed overflows in excess of 1 million gallons per day of raw sewerage from spilling into the Miller's River on any given Spring day.**

ü **2004- Robinson-Broadhurst funding has been sought and received for the pursuit of purchase of two parcels of land on the shoreline of Whitney Pond adjacent to the Bike Trail just behind the Brass Pineapple for passive park space.**

ü **2005- Converse Garden's project moving forward to design stage.**

ü **2005- 36 River Street reuse plan calls for a tie-in with a proposed river walk at the base of gardens.**

70. Scrutinize existing industrial lands. Evaluate needs and potential.

ü **2004- 10 acre parcel zoned industrial transferred to the newly constituted Winchendon Redevelopment Authority for marketing and sale.**

ü **2002-2004- Industrial parcels on Franklin Street and Jackson Ave in final stages of Tax Title taking.**

ü **2004- Sewerage connection moratorium lifted after more than a decade.**

ü **2004-2005 Industrial Land Inventory created listing all parcels with pertinent information and contacts.**

ü **Zoning Task force underway.**

71. Create an Industrial Park Commission.

ü **2002- Reviewed the scope of all economic development models available to the Town.**

ü **2003-2004- Appointed members to fill the seats of the Winchendon Redevelopment Authority which is the strongest of the models.**

ü **2005- WRA is up and running.**

72. Improve the Town's bond rating.

ü **2001- Successfully petitioned bond rating agencies in Boston to increase our bond rating from the then current B- to our existing A-.**

ü **2005- Successfully secured an increased bond rating from the rating agencies from our A- to an AA/AAA.**

21a. Create a web site for Winchendon.

ü **2003- Formed and appointed members to the Town's first Communications Commission. Primary task of establishing a town website.**

ü **2004- Sought and received town meeting funding for the commission's work.**

ü **2005- Due to the diligent efforts of the commission, the website was officially launched and unveiled at Annual Town Meeting in May of 2005.**

ü

Circulation Goals

OBJECTIVES

127. Widen the bridge over Whitney Pond on Glenallan Street.

2002; DPW; The Town should call on Montachusett Regional Planning Commission to study the available options; funding for the study and implementation should come from Town Meeting appropriation and State assistance if available upon completion of the study

ü **2005- Plans submitted to MassHighway for review and approval for the widening of the roadway over the Whitney Bridge on**

Glenallen.

ü **2005- Funding sources being pursued ranging from MRPC, MassHighway and the Whitney Bridge Trustees.**

128. Finish the Winchendon portion of the North Central Pathway.

ü **2001-2005- Bike Trail continues to be developed with Robinson Broadhurst, state and federal funds. Along with the 3 mile stretch from Old Gardner Road to the intersection of Rt. 140 and Green Street in Gardner, the section from Glenallen to the Clark should be completed this season.**

134. Integrate local transportation planning with land use policies.

Ongoing through Planning Board; no additional funding should be required

135. Adopt a scenic roadway bylaw.

2001; Planning Board, DPW; no additional funding should be required

136. Establish curb cut policies that incorporate sight distance, scenic character, and slope of the driveway.

2001; Planning Board, DPW; no additional funding should be required

137. Enforce the speed limits on all of the Town's roadways.

2001; Police Department; no additional funding should be required

ü **2001-2005 Ongoing**

138. Maintain an inventory of public parking spaces.

ü **2003-2004 MRPC conducted a "Downtown Parking Study" and determined that number of spaces is not an issue and that striping the spaces would be of benefit.**

ü **2005- Downtown parking striping project being pursued through Development Office, TTP and DPW.**

139. Require traffic and parking impact studies of all major commercial, industrial, and residential projects.

Ongoing through Planning Board; funding comes from the applicants for each project

140. Investigate the possible advantages of membership in the Montachusett Regional Transportation Authority.

2002; Board of Selectmen; no additional funding should be required unless/until the Town decides to become a member of the MART. Annual membership costs will come out of the Town's annual operating expenses

141. Establish roadway "greenbelts" to preserve the scenic and rural character of the Town's roadways and to reduce distractions and exhaust build-up at the roadside. Roadway greenbelts would set development back away from the roadside behind a dense barrier of vegetation.

2002; Planning Board; no additional funding should be needed

142. Limit the number of curb cuts to a specified number per 1,000 feet of frontage where rural character, scenic quality, or poor visibility is established.

2002; Planning Board, DPW (see #136); no additional funding should be needed

143. Hire a traffic engineer to design improvements for Blair Square, School Square, and downtown public parking.

2004; DPW, Board of Selectmen; appropriation by Town Meeting

- ü **2004-2005- MRPC performed a bench warrant study which details traffic volume, flow and assigned a rating to the intersections.**

Social Goals

Housing Goals

OBJECTIVES

73. Maintain 10% affordable housing inventory. Affordable housing should be available in all forms – detached single family houses, townhouses, condominiums, mobile homes, and multi-family structures.

- ü **2004- Achieved 10% threshold.**
- ü **2004- CDC Project created three affordable units in Town.**
- ü **2004- Mill Overlay District Bylaw encourages 25% “affordable” units.**
- ü **2005- Golf Residential Overlay District provides 25% affordable units.**
- ü **2005- Redevelopment Authority selling two lots to CDC for two additional affordable home opportunities.**

74. Promote mixed use of older, larger houses and commercial structures in the downtown. Mixed use means residential use on the upper floors of the structure and institutional, government/public service, or commercial uses on the ground floor.

- ü **2002- Winchendon Historical Society and its conversion and mixed use of the Whitney House.**
- ü **2004-Mill Overlay Bylaw Passed at Town Meeting- to encourage reuse of existing previously developed commercial structures in downtown.**
- ü **ULI study and report.**
- ü **2005- Heritage Mills Project moving forward to feasibility phase as Winchendon was selected and the site of the project.**

75. Promote mixed use of existing, unoccupied industrial structures.

- ü **2003- Glenallen Mills mixed reuse plan was under review with mortgage holder. EPA hazmat cleanup. Research options re: back taxes owed.**
- ü **2002-2005- Town set the tax title taking process in motion for Building on corner of Jackson Ave. and Franklin St. Should be in possession of town within 2-4 months. Slated for marketing by the Redevelopment Authority.**
- ü **2004-Mill Overlay Bylaw Passed at Town Meeting- to encourage reuse of existing previously developed commercial structures in downtown.**
- ü **2004- Heritage Mills Concept being pursued.**
- ü **2004- Glenallen Mills reuse being pursued.**
- ü **2004- ULI study and report.**
- ü **2005- Heritage Mills site selection complete with Winchendon chosen.**

ü **2005- Glenallen Mill town tax title auction slated for September.**

76. Promote upgrading of existing, older apartment buildings to provide for upper end rentals.
2002; Community Development, Planning Board, Building Inspector; (Complete) 2003 Fall Town Meeting; seek State money, grants, and local tax incentives

77. Require strict enforcement of the Massachusetts Building Code. Provide sufficient staff to ensure ample, timely inspections of new construction.

- ü **2001- Fulltime and effective Building Inspector hired.**
- ü **2002- State certified as Building Commissioner.**
- ü **2003- Increased hours for electrical and plumbing inspectors.**
- ü **2005- New Commissioner being hired.**

Police Goals

OBJECTIVES

78. Develop a capital improvement program to address expansion needs on a regular time schedule.

- ü **2002- Developed Policy for approval by the Planning Board, the Finance Committee and the Board of Selectman. Approved.**
- ü **2003- Implemented and funded long term, rolling five-year capital planning process with the FY04 town budget. Town meeting funded it.**
- ü **2004- Town meeting funded year two.**
- ü **2005- Town meeting funded year three.**

79. Achieve accreditation.

Ongoing (Complete) 2004; Police Department

80. Strive to reduce the amount of time that crimes remain unsolved.

- ü **2003-2005- Full complement of officers allowing detective to focus 100% on case resolution.**

Fire Protection Goals

OBJECTIVES

81. Promote fire safety awareness at all levels of the community.

- ü **2001-2004- S.A.F.E. Program carried out in the public schools.**

82. Provide emergency medical life support services.

- ü **200-2005- Increased department staffing by one additional firefighter/EMT to provide better coverage during the daytime hours where coverage was weaker.**

83. Provide hazardous materials control services.

ü **2004- Hazardous Materials Bylaw passed at Town Meeting.**

84. Reduce fire insurance rating.
(Complete) 2004; Fire Department

85. Develop a Master Plan and Capital Improvement Plan to address future needs and plans of the Fire Department.

- ü **2002- Developed Policy for approval by the Planning Board, the Finance Committee and the Board of Selectman. Approved.**
- ü **2003- Implemented and funded long term, rolling five-year capital planning process with the FY04 town budget. Town meeting funded it.**
- ü **2004- Town meeting funded year two.**
- ü **2005- Town Meeting funded year three.**

Emergency Dispatch Goal

OBJECTIVES

86. Stay abreast of technology advances.

- ü **2001-2005 Technology kept up to date with capital requests to Robinson Broadhurst and/or the Capital Plan.**

87. Continue public outreach programs to keep Townspeople informed about emergency services that are available to them.

- ü **2002-2005 School Resource Officer funded and in the school system**
-

Education Goals

OBJECTIVES

88. Raise Winchendon public school test scores, i.e. MCAS, SAT, etc., into the top 25% of the Commonwealth in the next seven years.
2001; School Committee; school budget funding as needed

- ü **2001-2005 Ongoing effort.**

89. Establish a late bus route to allow students greater access to after school activities.

- ü **2003-2005 Established.**

90. Maintain effective disciplinary policies.

Ongoing; school budget

- ü **Ongoing effort**

91. Maintain the structural integrity and value of the school's properties.

Ongoing through the School Department's maintenance program.

- ü **Ongoing effort**

91a. Develop, implement, and maintain an exemplary curriculum that prepares our students for the future.

2001; School Committee, Superintendent of Schools; school budget funding

ü **Ongoing effort**

92. Develop, implement, and maintain a program for gifted and talented children.

2001; School Committee, Superintendent of Schools; school budget funding

ü **Ongoing effort**

Library Goal

OBJECTIVES

93. Make the library handicapped accessible.

ü **2003-2005- Library Trustees developing a Building Improvement Plan to address issue of handicapped access.**

94. Address building code violations.

ü **2001-2005- Library Trustees diligently addressing these issues through the graces of grants from the Robinson Broadhurst Foundation.**

95. Automate library systems as needed.

ü **2001-2004- Completed.**

96. Provide access to the Town's GIS.

ü **2005- Reviewing proposals to have the Town's GIS data "hosted" on our engineering firm's server with internet access to any and all residents from any internet location. With their fee it is cheaper than keeping it on our server and paying license fees for each PC in house.**

97. Conduct a user survey and improve library collections in the Popular Materials category.

2001; Library Director; Complete in 2001; no additional funding needed

98. Upgrade and expand the software offered on the public access computers for both children and adults.

2001; Library Director; ongoing, no additional funding needed

99. Develop a plan with which to address anticipated increases in minimum requirements, which will become applicable to the library when Winchendon's population reaches 10,000.

2001; Library Director, Library Board of Trustees; complete plan by 2003; no additional funding needed to develop plan

Health Care Facilities Goal

OBJECTIVES

100. Maintain communication with the Winchendon Health Center to maintain awareness of their future expansion needs and emerging needs for specific types of practices.

ü **2001-2005- In regular communication with the president and CEO of the Heywood Hospital re: this and other issues.**

101. Create an inventory of available medical facilities ready for use by doctors or dentists.

2001; Planning Coordinator; Community Development

102. Determine approximate number of townspeople who are trained medical technicians, nurses, and nurse practitioners. Make this information part of the medical facility inventory.

2001; Planning Coordinator; Community Development

Solid Waste Disposal Goal

OBJECTIVES

103. Continue to expand recycling and composting efforts.

ü **2001-2005- Town recycling rate continues to top the statewide average.**

104. Increase revenues from recycled materials.

2001; Board of Health, Town Manager, DPW, Landfill Manager

ü **2001-2005 Ongoing effort**

105. Develop a capital improvement program to continue upgrading and improving the solid waste disposal facilities.

ü **2002- Developed Policy for approval by the Planning Board, the Finance Committee and the Board of Selectman. Approved.**

ü **2003- Implemented and funded long term, rolling five-year capital planning process with the FY04 town budget. Town meeting funded it.**

ü **2004- Town meeting funded year two.**

ü **2005- Town Meeting funded year three.**

106. Construct a permanent hazardous household waste collection facility at the transfer station.

2002; Board of Health, Landfill Manager, Town Manager; funding should come from the capital improvements program

Municipal Water Supplies Goal

OBJECTIVES

107. Develop a capital improvement plan for the timely improvement of the distribution system.

ü **2002- Developed Policy for approval by the Planning Board, the Finance Committee and the Board of Selectman. Approved.**

ü **2003- Implemented and funded long term, rolling five-year capital planning process with the FY04 town budget. Town meeting funded it.**

- ü **2004- Town meeting funded year two.**
- ü **2005- Town Meeting funded year three.**

108. Continue to pursue development of viable alternative sources of drinking water that will serve the needs of projected population increases and to serve as insurance against possible loss of our existing water supplies.

- ü **2003-2004- Seek a second water supply source to serve the current and future needs of the community. Site analysis and test well drilling underway.**
- ü **2005- Expanding supply source review to include possible fractured bedrock well sites.**

109. Identify and protect our aquifers from contamination.

2001; Planning Board, Board of Health, Conservation Commission

110. Maintain a balanced water budget, so that water is withdrawn from and returned to the same watershed.

2001; Board of Selectmen (see #45)

- ü **2001-2005- Ongoing.**

Municipal Wastewater Treatment Goal

OBJECTIVES

111. Evaluate the available alternatives for providing municipal wastewater treatment. Choose the most cost-effective alternative that will comply with EPA's regulations. Secure the necessary funding. Obtain the NPDES permit. Proceed to completion.

- ü **2001- Evaluated, presented and funded a \$15.5 million dollar upgrade via town meeting, SRF zero percent interest loan, and Rural Development grants of \$1.515 million dollars.**

112. Develop a capital improvement program to provide regular upgrades and maintenance of the municipal wastewater treatment and collection systems.

- ü **2002- Developed Policy for approval by the Planning Board, the Finance Committee and the Board of Selectman. Approved.**
- ü **2003- Implemented and funded long term, rolling five-year capital planning process with the FY04 town budget. Town meeting funded it.**
- ü **2004- Town meeting funded year two.**
- ü **2005- Town Meeting funded year three.**

113. Eliminate sewage discharges to the Millers River from private residences.

- ü **2001-2004- Sewer Infiltration and Inflow work is ongoing to reduce the introduction of wastewater getting into the waterway.**
- ü **2001-2004- Wastewater Plant upgrade was designed to allow for additional capacity to include Maple Street and the Springs. This would require the sewer infrastructure to be extended.**
- ü **2001-2004- Title Five Program is still in progress and available.**
- ü **2005- Title Five program funds being sought to re-establish the program.**

114. Enforce the Sewer Regulations.

Ongoing through DPW and the Health Inspector.

ü **2001-2005- Ongoing**

Dams Goals

OBJECTIVES

129. Implement the remedial measures of the state inspections within the mandated time frames.

ü **2001-2004- Ongoing.**

130. Develop Emergency Action Plans for both dams.

ü **2001-2005- Emergency Management Plan has been updated to provide the most effective and current emergency action plans.**

131. Establish operations and maintenance program for both dams.

ü **2001-2004- Operations plans for the newly constructed Red Dam are in hand while the operations and maintenance plans for the soon to be re-constructed Great Dam will be provided at construction completion.**

ü **2004- Grant funding being sought for conceptual design work to put the Whitney Pond dam back online as a “green-power generation” dam. Said project would necessarily include updated operations and maintenance plans.**

132. Keep better records of construction and repairs.

ü **2001-2004- Record keeping systems improved upon and in effect.**

133. Establish instrumentation to keep flow records.

2002; DPW, Town Manager; purchase, installation and training expenses should be included in the appropriation in #128; record-keeping should be included in the DPW operating expenses

Appendices (if separate Module – Otherwise at end including)

References

Economic Development Strategy, 1996

Greater Gardner Sustainable Growth Management Plan, 1999

Interim Soil Report for Northwestern Worcester County Massachusetts, USDA Natural Resources Conservation Services

The Small Town Planning Handbook; Daniels, Keller & Lapping; 1995

The State of Our Environment, EOE, 2000

United States Census, 1990

United States Census, 2000

U.S. Environmental Protection Agency, 1999

Winchendon Open Space and Recreation Plan, 1999

Winchendon Open Space and Recreation Plan, 2006

Winchendon Master Plan, 2001

Tools and Metrics Calculations

Glossary

Biodiversity is a term used to describe the variety of organisms found in a particular system. Usually the greater the biodiversity the greater the stability and vitality of the system.

Brownfields are sites of former industrial activities, which have been abandoned or are underutilized, and often contaminated by hazardous materials.

Hardpan describes a layer of soil that is impermeable to water

PMF refers to the Probable Maximum Flood, *the test flood for spillway adequacy. As this is an event of “Biblical proportions”, spillways design standards are based on the 1/2 PMF for practical reasons.*

SMEs is an acronym for Small/Mid-size Enterprises, a term often used for smaller scale businesses.

UDO (Unified Development Ordinance) – a comprehensive plan, usually for a municipality, that combines the Master Plan, Zoning Bylaw and Subdivision Rules and Regulations in order to avoid inconsistencies between the plans and bylaws.

Walkable (-ability) – refers to an area that is pedestrian-friendly, that one can easily walk around AND have places to walk to (e.g. “to pick up a gallon of milk”, a neighborhood restaurant,...).

ENVIRONMENT MODULE

This module discusses the raw materials of which Winchendon is composed: human resources, natural resources, open and built-space, and the uses for such resources. Management of present and future resources to ensure they are not squandered is a key purpose for planning and makes a good first module of the Master Plan.

Contains: [Human Resources \(Demographics\)](#), [Natural Resources \(Forest, Wildlife and Resources, Agricultural, Soil/Slope, Earth Mineral Resources, Water Resources\)](#), [Open Space and Landscape \(Inventory\)](#), [Recreational Resources](#), [Land-Use \(Current, Trends, Buildout\)](#).

Human Resources

Humans are a part of the environment, and a rather significant part at that – while acknowledging the need for treating needs of society, understanding Man’s relationship to nature is critical to being able to plan for efficient and effective resource management. A look at the human needs pyramid shows us that food, shelter and human interaction are essential to healthy functioning – not only does this mean their supply but also the handling of their by-product: viz. waste, consumption of space with shelter and roads that could have been used for food production, stormwater runoff of built-space and so forth. In fact, it [Vance] has been suggested that the structure of most towns in the Eastern US is directly the result of water and sewer provision.

Consequently, analysis of population, built space and growth rate of builtspace are critical to understanding the state of Winchendon’s environment over the next decade. In the 2001 Master Plan, Winchendon’s population was 9,611 (2000 Census) and developed land at roughly 3000 acres, or roughly 3.2 people/acre. Build-out was expected to be 28,000 residents with the zoning of the day or 1.3 people/acre. In other words, not only will there be more Winchendonians, but they will consume nearly 3 times as much space. Open space per resident would diminish from roughly 2.6 acres/person to a quarter acre/person. Cost of service

provision (roads, police, etc.) increases exponentially with diminishing density. Thus, the impact of human development on Winchendon's environment would be substantial.

Natural Resources

This element provides an inventory of the significant natural, cultural, and historic resource areas of the municipality, and policies and strategies for the protection and management of such areas.

Winchendon is located in the Northeastern Highlands Ecoregion, an area characterized by a cooler climate and a shorter growing season. The Town has an abundance of forestlands, wetlands and surface waters, which offer a wide variety of wildlife habitats and recreational opportunities. Healthy natural resources make an important contribution to the rural character of the Town.

The health and stability of natural resources is reflected in their level of biodiversity. **Biodiversity** is a term used to describe the variety of organisms found in a particular system. Usually the greater the biodiversity the greater the stability and vitality of the system. Biodiversity is lost through --fragmentation and destruction of wildlife habitats, and the introduction of non-native species.



Natural Resources Goal & Vision

Preserve and protect Winchendon's natural resources, to ensure their sustainability and continuation of their environmental, aesthetic, and economic values.

OBJECTIVES

Utilize all available funding sources, (e.g. EOEAs Self-Help and Urban Self-Help Programs, and the Land and Water Conservation Funds) to preserve, protect, enhance, and/or rehabilitate the Town's natural resources.

Work to preserve, protect, enhance, or rehabilitate the biodiversity of our local ecosystems.

Work with the Council on Invasive Species to establish a program to control invasive species on municipal lands and throughout the Town.

Evaluate the Town's use and storage of salt as a road de-icer. Ensure maximum efficiency in its application, minimizing adverse environmental impacts to roadside vegetation and adjacent wetlands.

Prohibit deposit of used street sand into the Town's surface waters.

Forest Resources (cf. OSRP – Vegetation)

Forestlands cover a large percentage of the Town's land area. They are predominantly comprised of northern hardwoods (maple, birch, and beech). The abundance of stone walls meandering through the woods today give silent testimony to the time when 70% of the State's forests were clear cut to provide lumber for wood-burning railroads and packing crates and to provide pastures for numerous sheep farms. Today, over 60% of the state is once again forested. (*The State of Our Environment, 2000, EOEAs*)

Forestlands are ecologically and economically valuable for many reasons. They clean the air, provide shade and reduce erosion and runoff. They provide habitat for wildlife, are a renewable energy resource and a source for lumber. The leaves of the deciduous trees decompose to create rich new soil. Trees are being newly identified as a quick and economic means of removing soil contaminants from brownfields. ([Brownfields](#) are sites of former industrial activities, which have been abandoned or are underutilized, and often contaminated by hazardous materials.) Whether they line the streets of our downtown or are located in large, undisturbed tracts, trees are



an important natural resource for the Town.



The values of our forestlands are threatened when there is unmanaged exploitation of them. Fragmentation of large tracts often compromises the habitat value of a forest. When clear cutting occurs, rampant erosion often follows. Little or improper management of this resource weakens its sustainability. Market forces that favor new construction coupled with little or no financial incentive to retain our forest resources pose the greatest threat to their preservation.

Forest Resources Goal:

Preserve and protect Winchendon's forest resources to ensure continuation of their environmental, aesthetic and economic value.

OBJECTIVES

Promote measures that encourage owners of large forested tracts to avoid fragmentation or subdivision of forested areas.

Support local, State and Federal programs and funding which will encourage landowners to retain managed forest lands.

Encourage awareness of the Town's urban trees through an "adopt-a-tree" program with the Town's elementary schools.

Continue and expand the tree-planting program funded by the Conservation Commission.

Implement forest ecology education in our school system.

Ensure sustainable management through replanting whenever cutting occurs for development. Require "Best Management Practices" in all development requiring tree cutting.

Encourage compatible uses of forestlands for recreation, tourism and economic benefit where such uses will not impair forest quality or wildlife and/or forest habitat.

Avoid the use of single species or non-native species in development site plans and Town landscaping projects – promote diversity and the use of native, drought resistant species.

Agricultural Resources

Almost 4% of Winchendon's land area is in agricultural use. Presently there are two working dairy farms, one Community Sustained Agriculture (CSA) operation, and a variety of small homestead operations. Visible evidence of agricultural activities, which includes hayfields, pastures, grazing livestock, and cropfields is an integral component of the rural character which the Town wants to preserve.

Additionally, agricultural activity offers potential economic opportunity for the Town as a tourist attraction. Such activities might include petting zoos of heirloom and traditional livestock, "pick-your-own" crop operations, farm tours, "farm work vacation" opportunities, farmers' markets, and research foundations for alternative farming techniques. Working farms also support a wide variety of secondary businesses including machinery sales and services, veterinarian

services and supplies, feed, seed and fertilizer supplies, and the like. Working farms also ensure a local supply of fresh foods.

The Town's agricultural resources are under severe development pressure. Once excavated and built upon, the soils and land area required to support agricultural activity are lost. As economic conditions are less favorable to farming, there is little economic incentive to preserve these lands for future generations and needs to be determined. It is unwise for any community to allow the loss of all of its agricultural land and activities to overseas food production and with the resulting vulnerability to interrupted food supplies.

Prime Farmland

The U. S. Department of Agriculture defines prime farmland as "the land best suited to food, feed, forage, fiber, and oilseed crops. It may be cultivated land, pasture, woodland, or other land, but it is not urban and built-up land or water areas. Prime farmland produces the highest yields with minimal inputs of energy and economic resources, and farming it results in the least damage to the environment. It is of major importance in providing the Nation's short- and long-range needs for food and fiber. Because the supply of high quality farmland is limited, the U. S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland." (*Interim Soil Report, Northwestern Worcester Conservation District*)



The map units that are considered prime farmland (in Winchendon) include Scituate (27B)*, Merrimac (37A & B)*, Sudbury (38A & B)*,

Woodbridge (81B)*, Canton (113B)*, and Paxton (122B)*. (* See Soils Map Overlay for Winchendon, 1995) There are 1594 acres of these map units in Winchendon. Unfortunately, the largest continuous tract of these units underlies the most urbanized section of town including half of the R4 residential district, half of the central business district, and the lower portion of the Lincoln Avenue industrial park. The remaining units occur as scattered pockets throughout the Town with somewhat higher concentrations occurring in the northwestern and north central parts of Town. Every effort should be made to preserve as many of these tracts as possible.

Soils Goals

Land uses shall reflect the capability of the underlying soils to sustain them.

Good stewardship shall be employed in the care and improvement of the Town's soils.

Prime farmland will be preserved for future agricultural uses.

OBJECTIVES

Develop and enforce an erosion control bylaw to prevent unnecessary loss and improper movement of soil.

Soils inventories shall be conducted on any parcel to be developed.

Agricultural Resources Goal:

Conserve viable agricultural lands for current and potential value as a resource for the production of food, and for their aesthetic and other contributions to economic markets in tourism and recreation.

OBJECTIVES

Support efforts to create and promote "agri-tourism".

Support local agricultural operations through a "buy local" campaign.

Inventory prime agricultural soils and preserve them for future needs.

Form a local land trust to preserve farmlands.

Promote agricultural education in the school system, raising the level of awareness of food sources and production techniques.

Encourage environmentally responsible, sustainable agricultural operations in Town.

Earth Mineral Resources

Gravel is the primary earth mineral resource in Winchendon. Repeated glaciation has left an abundance of moraines, eskers, and various other types of deposits. While gravel is essential to most types of development, extraction in Town has led to such controversy that future extraction has been restricted to the industrial zoning district. The lack of inventorying and appropriate zoning, coupled with ineffective regulation and enforcement, has made extraction unacceptable and left a number of abandoned and unreclaimed sites which pose environmental and/or safety hazards, and aesthetic damages.

Earth Mineral Resources Goal:

Ensure that land areas disturbed by earth mineral extraction are restored and that future extraction methods will not result in significant degradation to the environmental, aesthetic, or economic value of surrounding areas.

OBJECTIVES

Inventory viable gravel and other earth mineral resources in Town.

Ensure that extraction occurs only in areas where there will be the least conflict with surrounding land uses.

Ensure timely reclamation of extraction sites, for uses which are in harmony with the surrounding land uses.

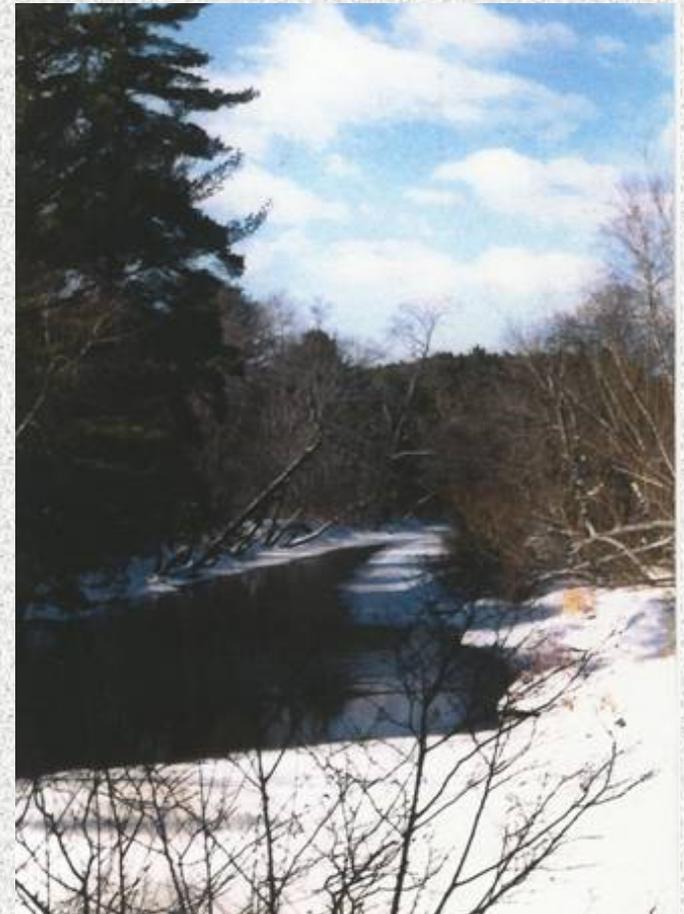
Restore existing unreclaimed sites to safe, environmentally sound and aesthetically pleasing uses.

Water Resources

Surface Water

There are approximately 635 acres of water, roughly 2% of the total area of Winchendon. The Town is wholly within the Millers River watershed and is drained by the Connecticut River. The Millers River runs roughly east to west, nearly at the Town's mid-point. It is a Class B river, designated for primary (swimming) and secondary (boating and fishing) contact recreation. (*Greater Gardner Sustainable Growth Management Plan, 1999*)

Whitney Pond and Whites Mill Pond are artificial ponds created by damming the Millers River. Hunts Pond, which is just downstream from Whitney Pond, is used to generate hydroelectric power at the dam below the High Street bridge.



Lake Dennison is a part of the U.S. Army Corps of Engineers Birch Hill Flood Control Project. The 4,221-acre site is managed by the Dept. of Environmental Management for recreational use. In addition to a public swimming area there is a 150-site campground on the property.

Lake Monomonac and Mill Glen Pond (also known as Stoddard Pond) are naturally occurring ponds whose water levels have been raised by damming. A lake association at Lake Monomonac address local issues such as nuisance vegetation control.

Public Water

Winchendon's public water supply comes from Upper Lake Naukeag in Ashburnham, with approximately 2000 connections to the Town's water system. Currently, Ashburnham and Winchendon are constructing a new filtration plant to comply with State mandates. In 1995, municipal water use averaged 0.68 million gallons per day. It is projected to be 0.71 in 2000 and 0.73 by 2010. (*Greater Gardner Sustainable Growth Management Plan, 1999, OSRP*)

Ground Water

Groundwater resources are a function of both surface and subsurface geology. In Winchendon, surface geology shows the results of repeated glaciation, during which the ground surface was eroded to bedrock and subsequently covered by deposition of various materials, mainly till and stratified drift. Stratified drift deposits tend to show higher groundwater yields than till deposits, particularly those composed of coarse grained materials. Drift deposits with a saturated thickness of greater than 40 feet may be suitable for municipal water supplies, if they yield 200 gpm for extended periods.

The 1990 census shows there are 782 drilled wells in Town and 121 dug wells. These wells provide drinking water for residents living outside of the municipal water system.

Groundwater is less susceptible to contamination than surface water. However, it is much more difficult and much more expensive to clean once it is polluted. For that reason, it is best to use great caution in determining appropriate land uses that may overlie known aquifers.

Water is necessary for life. Its availability or lack thereof, has a profound impact on development patterns. Limited quantities must be acknowledged. In addition, water availability is compromised when, through public water supplies and wastewater treatment facilities, the water is withdrawn from one watershed and returned to another. Local aquifers cannot be recharged when there is a deficit in the rate of return. Likewise, water that runs off of impermeable surfaces and into flowing surface waters fails to recharge local aquifers. (*The State of Our Environment 2000, EOEA*)

Wetlands

Although not often thought of as a natural resource, research indicates the environmental value of wetlands. Wetlands contain greater

biodiversity than almost any other habitats (tidal pools being the sole exception). They serve as breeding areas for many species of birds, fish, reptiles, and amphibians. Vernal pools, a unique form of wetland habitat, are home to such creatures as fairy shrimp and fingernail clams.

Wetlands serve as nature's flood control areas, absorbing large volumes of water and then releasing it slowly into the surrounding areas. They provide pollution abatement capacity when their carrying capacities are not unduly strained or exceeded. (The carrying capacity is the amount of pollution or degree of change that an ecosystem can sustain without permanent damage.) What was once considered "a stagnant nuisance" is now being respected for the many valuable functions it serves.

Wetlands are threatened when disturbed by development or contaminated by pollutants and sediments. Mitigation measures, such as wetlands replication, which often accompanies development, are usually unsuccessful, and although protected by State and Federal law, wetlands continue to be sacrificed for development.

Many species that inhabit wetlands are threatened or endangered. The map of estimated habitats of state-listed rare wetlands wildlife (1992) show two generally defined areas. The specific locations of these rare and threatened species are not published for protection purposes.



Wetlands Goals

Preserve and protect the Town's wetland resources.

OBJECTIVES

Promote public awareness of wetlands values. Encourage school students to assist in the certification of vernal pools.

Ensure development regulations promote wetland preservation and integrity.

Water Resources Goal:

Preserve and protect the quality and quantity of Winchendon's present and future water resources.

2001 OBJECTIVES

Develop a comprehensive water resources plan which will maintain a balanced "water budget".

Reduce nonpoint source pollution by reducing the amount of impermeable surfaces in Town and limiting the use of fertilizers on the

Town's green areas.

Ensure separation of stormwater and wastewater collection systems to prevent discharges into the Millers River.

Reduce road salt usage and provide secure storage of stockpiles to prevent leaching.

Upgrade the wastewater treatment facility to meet current and projected needs.

Develop a Capital Improvements Program, ensuring timely repairs and upgrades to the wastewater treatment system.

Protect areas which serve as water supplies in the future – particularly land overlying potentially productive aquifers – through acquisition or zoning, and other regulations which restrict incompatible uses.

Ensure proper disposal of waste oils at the Town garage.

Continue Hazardous Household Waste collection efforts.

Promote use of native drought resistant plant species in site plans and Town landscaping projects.

Finish groundwater mapping, providing a complete picture of the Town's aquifers.

Ensure that lot sizes reflect the type of soil present and its ability to absorb wastes without polluting water supplies or adjoining waters.

Conduct an inventory of hazardous waste generators in Town. Ensure the proper disposal of wastes being generated.

Ensure that commercial development is properly sited and that hazardous wastes are properly handled.

Wildlife and Fisheries Resources

Wildlife resources in Winchendon are those which typically occupy the wetland and woodland habitats dominating the Town. They range from Black Bear and White Tailed Deer to songbirds, game birds, amphibians, and reptiles. Rare plants and animals known to occur in Winchendon include Bartram's shadbush, Wood turtle, Eastern Elderberry Long-Horned beetle and the Spring salamander. Bartram's shadbush is a threatened species and the Eastern Elderberry Long-Horned beetle and the Wood turtle are both species of special concern.

Hunting, fishing, photography, and bird watching are just a few of the many recreational and educational opportunities offered by the abundant wildlife population. Certain wildlife species also serve as environmental health indicators. However, wildlife resources across

the State are at risk due to habitat loss, fragmentation and/or degradation. Those species able to adapt are crowded into close proximity with human activity, and conflicts often occur. Those unable to adapt dwindle in numbers, or vanish completely.

Wildlife Resources Goal

Preserve and protect the wildlife resources of our Town.

Strive to maintain or increase levels of biodiversity in the Towns various ecosystems.

OBJECTIVES

Establish a Local Species and Habitat Registry, maintained by the Conservation Commission for use in local land use permitting and open space planning.

Promote subdivision designs which reduce habitat fragmentation.

Promote healthy habitats through appropriate land uses, sound waste management practices, and environmental awareness.

Soils

“Soils information indicates the ability of a parcel of land to support buildings, absorb water, and grow plants. Steep slope, shallow depth to bedrock, poor drainage, and wet soils can hamper the construction of sturdy buildings. Sewage disposal by on-site septic tanks and leach fields may pollute water supplies, cause a public health hazard, and reduce wildlife in nearby natural areas.” *(Small Town Planners Handbook, 1995)*

Slopes

Soil slopes are measured as a percentage of drop (or rise) over 100 feet of horizontal distance. Thus a 3% slope describes land that rises or falls 3 feet over 100 horizontal feet of distance. A 15% slope is considered moderate. Slopes greater than 15% are considered steep for most construction purposes. Most slopes in Winchendon do not represent a limiting factor to development. Any slope, however, is prone to erosion when disturbed by development. Soil erosion causes many problems including loss of valuable topsoil, instability of the remaining slope, soil deposition in unwanted places, and unattractive landscapes. Every effort should be made to minimize soil erosion.

Slopes in Winchendon

% SLOPE	ACRES
0 to 3%	2147
3 to 8%	14442
3 to 15%	923
8 to 15%	3536
15 to 25%	888

25 to 35%	182
25 to 45%	254

74% of the soils in Winchendon are severely limiting for on-site septic systems due to perched water tables (hardpan), bedrock, and wetness. 26% of the soils tend to be moderately limiting for homesites. “Limitations are considered *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations. Limitations are considered *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required.” (*Interim Soil Report, Northwestern Worcester Conservation District*)

Soil Limitations**

		<u>ACRES</u>	
Septic	Severe	Bedrock	1094
		Wetness	10947
		Slope	663
		Hardpan*	3923
Homesites	Severe	Bedrock	1094
		Wetness	4257
		Slope	370
		Hardpan	0

*Hardpan describes a layer of soil that is impermeable to water. The hardpan in Winchendon is soil that was compacted by glaciation that took place 12,000 years ago. The Paxton soil unit contains this hardpan. Water tables are often “perched” on top of these impermeable layers.

**Only that part of the soil between depths of 24 and 72 inches is evaluated.

Open Space

This element provides an inventory of recreational resources and open space areas of the municipality, and policies and strategies for the management and protection of such resources and areas.

M.G.L. chapter 61B defines “recreational land” as land that is

“...retained in substantially a natural, wild, or open condition or in a landscaped condition in such a manner as to allow to a significant extent the preservation of wildlife and other natural resources, including but not limited to, ground or surface water resources, clean air, vegetation, rare or endangered species, geologic features, high quality soils, and scenic resources.”

The “Environmental Handbook for Massachusetts Conservation Commissioners” equates recreational land with open space. For the purposes of this Plan, the two terms shall be equated.

The values of open, undeveloped land are many. It is



esthetically pleasing, it contributes to the Town’s rural character, it helps prevent runoff and the associated pollution of surface waters, it prevents loss of topsoil, it reduces pollution of groundwater, and aids in recharging aquifers. Open space also serves as a type of “land bank” for future agricultural and natural resource needs. Large blocks of undeveloped land are important for the protection of biological and ecological diversity. Winchendon residents and visitors have enjoyed the Town’s open spaces for hiking, hunting, fishing, and other recreational pursuits. As development of these lands continues, the resource diminishes. Increasing populations put greater demands on diminishing resources, making those resources that remain more valuable still.

Open space is a vital and necessary component of the Town’s landscape and measures should be taken to protect it. Open spaces are valuable whether they are in the outlying areas of Town or in the more urbanized downtown areas. Therefore when considering parcels for preservation, all lands should be considered.

Recreational Resources

INVENTORY

Town-owned

Resources

Memorial School
(playground equipment, basketball hoops, swing sets)

Toy Town Elementary School (playground equipment)

Marvin School (playground equipment, swing sets, ball field)



Murdock Middle/High School (athletic fields, outdoor track, ball fields)
 Warren Bentley Athletic Field (ball field)

State and Federally –owned

Resources

Birch Hill Wildlife Management Area (4,221 acres in Winchendon, Templeton & Royalston; hiking, fishing, camping, canoeing, swimming, multi-use trails, bird watching, hunting, historic sites)

Otter River State Forest (12,788 acres in Winchendon and Templeton camping, swimming, playing field, picnic areas, hiking, fishing, hunting, multi-use trails)

Lake Denison Recreation Area (non-motorized boating, hiking, horseback riding, swimming, hunting, fishing, camping, multi-use trails)

Privately-owned

Resources

Winchendon School (playing field, soccer and baseball fields, trails, tennis courts, outdoor pool, 18-hole golf course)

Clark Memorial (soccer fields, playground, swing set, ice rink, basketball court, tennis courts, outdoor walking track, indoor pool, indoor gymnasium)

Eugene M. Connor
 American Legion

(softball field)

Other

Resources

North Central Pathway development 16-mile long bike path linking downtown Gardner to downtown Winchendon; under

Webster Street Park awaiting funding 6 acres of Town-owned land on Webster Street to be developed as a neighborhood park;

Whites Mill Pond Town-owned waterfront parcels recommended by Planning Board to be developed as low-impact recreation areas

Skateboard Park

Still under consideration

Recreational Resources

MANAGEMENT/PROTECTION

Town-owned parcels are under the management of the Public Works Department or the School Department (if located on school grounds). At the annual Town Meeting in June 2000, the Town approved the establishment of a Recreation Commission. The Commission, once

established, will have charge of all playgrounds, parks, and recreation facilities of the Town that are not under the control of the School Department. The Commission will be responsible for facilities and maintenance, recreation programs, and long range planning.

The Otter River/Birch Hill/Lake Dennison complex is jointly managed by the Army Corps of Engineers, the Department of Environmental Management, and the Division of Fisheries and Wildlife. The management of these lands for the next ten to twenty years is described in the “Goals Plan” for the northern tier.

According to the Open Space and Recreation Plan, *“The majority of recreational facilities enjoyed by townspeople are made available through the Clark Memorial, the American Legion, and the Winchendon School. Their generosity has enabled the Town to offer very limited recreation facilities on municipal land.”*



Open Space Areas

INVENTORY

Town Owned

The Town of Winchendon Open Space and Recreation Plan (OS&RP)(updated 1998) indicates approximately 300 acres of undeveloped open lands in the Town’s ownership. The parcels are widely varied in size and are widely scattered throughout Town. Of particular note are the following:

- 90 acres of forested land on Town Farm Road (Town Forest)
- 16.55 acres on N. Royalston Road
- 9.7 acres on Robbins Road – now zoned Industrial

- 54.24 acres on Lincoln Avenue (former landfill, now capped & zoned industrial)
- 65 landlocked acres near N. Ashburnham Road
- 15.50 acres on Teel Road (former Militia Training Grounds)
- the “Town Green” at Old Center

The remaining parcels are substantially smaller. At present there are no known plans for development or sale of these parcels. They are not protected from development either.

State Owned

The OS&RP shows 1,646 acres of state owned open space land in the Town. These include the Birch Hill Wildlife Management Area, Otter River State Forest, and Lake Dennison Recreation Area in the western part of the Town. The State also owns the Winchendon State Forest on Mellen Road (175 acres), 1.6 acres of frontage on Lake Monomonic, and the State Wildlife Management Areas along the Millers River between Spring Street and the North Ashburnham Road.

Federally Owned

There are 2,607 acres of Federally owned open space lands in Town located in the western part of the Town. These are almost exclusively in the Birch Hill Wildlife Management Area and the Lake Dennison Recreation Area.

Privately Owned

This category includes “public, private, and non-profit properties” (*OS&RP, 1999*) and contains 515 acres which are widely scattered and of varying sizes. Of particular note is the 85-acre parcel of the New England Wildflower Association on West Street and the 240 acres owned by the Winchendon School on Ash and Hall Roads.

Chapter 61, 61A, and 61B

These lands are inventoried as follows:

- Chapter 61 – 5,187 acres
- Chapter 61A – 975 acres
- Chapter 61B – 174 acres.

MANAGEMENT/PROTECTION

Land is considered “protected” from development if a Land Trust owns it, if it has deed restrictions that prohibit or limit development, or if it has conservation easements on it. Land that is owned by the Town, the State, or the Federal government is not considered “protected” for open space purposes. Land in Chapter 61, 61A or 61B is also not considered protected.

The OS&RP states:

- The state and federal government own “slightly less than 16% of Winchendon’s landmass”. This represents 36% of the

inventoried open space lands.

- Nearly one-fourth of Winchendon's landmass is enrolled in the Chapter 61, 61A or 61B program. This represents 53% of the inventoried open space lands.

According to Joseph Iagallo, Principal Park Supervisor at Otter River State Forest, (*telephone interview, Sept. 2000*) the lands at the Lake Dennison/Otter River State Forest/Birch Hill complex are jointly managed by the Army Corps of Engineers, the Division of Fisheries and Wildlife, and the Department of Environmental Management. The management policies are described in the "Goals Plan" for the northern tier, and do not include any plans for development of these parcels for anything other than wildlife habitat and outdoor recreation.

Parcels enrolled in the Chapter 61, 61A, and 61B program "distributed in large blocks throughout Winchendon and comprise much of the open fields and green forests that townspeople associate with our rural environment." (*OS&RP, 1999*) These lands are subject to market forces and the needs of their respective owners and are therefore vulnerable to development pressure. The Town has the opportunity to purchase these lands when they are removed from the Chapter 61 program.

"State law allows property owners to sell or donate permanent voluntary restrictions on the use of their land for conservation, watershed, agricultural, or historic preservation purposes. A government agency or a nonprofit enforces the restriction. The owner retains fee ownership of the land, while possibly qualifying for tax benefits." (*The State of Our Environment, EOE, 2000*)

To prevent the loss of municipally owned parkland, the Massachusetts constitution requires a two-thirds vote of the legislature before open space can be used for non-park purposes. In the event that no other land is feasible for a proposed non-park use, the town must dedicate other compensatory land of equal or greater value to ensure there is no net loss of open space.

Governor Cellucci has set a goal to protect 200,000 acres of open space by the year 2010. This is a good time for the Town to pursue protection strategies for its own open space resources.



Parks and Recreation

[cf. OSRP]

An inventory of Town-owned parks is shown in Table 10.

Table 10 Town-owned Parks		
<i>Name</i>	<i>Location</i>	<i>Amenities</i>
GAR	Murdock/Park/Grove	Band Stand, Benches
Doughboy	West/School	Benches
Veteran's	Front/Pleasant	Picnic Tables
Bentley Field	Murdock Ave	Ball Fields

The Town does not own any recreation areas. There are, however, ball fields, swing sets, playground equipment, and basketball courts at the schools.

Table 11 School Recreational Sites

<i>Memorial School</i>	<i>Toy Town Elementary School</i>
Playground equipment	Playground equipment
Basketball hoops	
<i>Murdock Middle/High School</i>	<i>Marvin School</i>
Swing sets	Playground equipment
Athletic field	Swing sets, Ball fields
Outdoor track	

Additional recreational opportunities are available at the Wendell P. Clark Memorial Recreation Center, a non-profit center equipped with an outdoor track, a playground, swing set, outdoor basket ball and tennis courts, an indoor skating rink, indoor swimming pool, and gymnasium. "The Clark", as it is locally known, offers athletic instruction in a wide variety of fields and hosts many recreational and holiday events throughout the year.

Other recreational opportunities available in Winchendon are shown in Table 12.

Table 12 Recreation Opportunities Located in Winchendon*

Birch Hill Reservoir and Wildlife Management Area

4,221 acres in Winchendon, Templeton, and Royalston

Hiking, fishing, camping, canoeing, swimming

6.5 miles of bike trails

30 miles of gravel roads and multi-use trails

Cross-country skiing, ice fishing, snow shoeing, dogsledding

Bird watching, hunting

Historic sites including King Phillips' Rock, old foundations, a well site, remains of a mill dam and Birch Hill Dam

State-designated Wildlife Viewing Area

Otter River State Forest

12,788 acres on the boundary between Winchendon and Templeton

State-designated Wildlife Viewing Area

100 campsites, 2 swimming beaches, playing field, picnic areas

Hiking, camping, fishing, picnicking, hunting, mountain biking, cross-country skiing, snowmobiling

Seasonally staffed, supervised programs

Lake Denison Recreation Area

Non-motorized boating, hiking, horseback riding, swimming

Cross-country skiing, snowmobiling

Fishing, hunting

150 campsites

Seasonally staffed, supervised programs

Wilder-McKenzie Nature Trail

**Greater Gardner Sustainable Growth Management Plan, 1999*

The Town owns several small parcels of land on Whites Mill Pond, which the Planning Board has recommended be developed as low-impact recreation areas. They would be suitable for non-motorized boating access, picnic areas, and wildlife observation. The Community Development Office has applied for a grant with which to develop 6 acres on Webster Street as a neighborhood park.

The Town is also in the early stages of developing a skateboard park. Land identified for possible location of the park is at the former Poland and Streeter Schools, opposite the GAR Park.

The Public Works Department maintains the Town's parks. In response to a growing demand for recreational activities, the Town has adopted a new bylaw to create a Recreation Commission. The Commission would have charge of all playgrounds, parks, and recreation facilities of the Town that are not under the control of the School Department. The Commission would be responsible for facilities and maintenance, recreation programs, and long range planning.

Parks and Recreation Goals

Open Space Goals *(Summarized from OS&RP, 1999)*

Conserve open space resources, including agricultural land, forested land, wildlife habitat, and recreational land.

Protect the rural character and scenic quality of the Town through the preservation of open spaces.

Link Open Space goals with Natural Resources goals.

Preserve wildlife habitats and rare plant habitats.

Support the Recreation Commission.

Integrate, where possible and/or appropriate, open spaces with recreational activities and facilities.

Resolve the problem of substandard or non-existent on-site septic disposal systems, with first priority going to areas in close proximity to the Millers River, Lake Monomonac, and Whitney Pond. Go on to other failing systems that may be near other major bodies of water.

Finish the North Central Pathway.

Support the Community Development Office's Title V program.

Create an active recreation area for such endeavors as skateboarding, roller blading, and biking.

Implement goals and objectives of the 1999 Open Space and Recreation Plan.

OBJECTIVES

Regulate inappropriate land uses to avoid or mitigate loss of water quality or wildlife habitats.

Prioritize open spaces considered for preservation. Criteria should be based on level of contribution to biological and ecological diversity; water supply and water quality; aesthetics and recreation; community character; and agricultural lands.

Identify scenic roadways and corridors that will aid in the protection of open spaces. Then adopt a local corridor district in the general

bylaws and a scenic roadway bylaw in the zoning bylaws to regulate development along these declared scenic roadways and corridors.

Protect the Town's working farms from development.

Develop a linked system of open spaces and recreation, integrating activities where appropriate.

Seek funding sources and alternative, low-cost means for protection of environmentally sensitive areas.

Establish a fund for purchase of (a) tax title lands and (b) development rights on parcels that meet the criteria for open space preservation.

Modify zoning bylaws to encourage styles of development that will preserve open space.

Modify zoning bylaws to regulate inappropriate uses on lands that are adjacent to surface waters, are located in watersheds to important surface waters, and those that overlie known aquifers and their recharge zones. The industrial zoning district in the southeast part of the Town is known to overlie the protective district for the city of Gardner's Crystal Lake water source. This may need to be modified to prevent degradation of this resource. Similarly, the Zone II for some of Templeton's public wells extends into Winchendon. The effects of the overlying zoning should be examined and modified if necessary.

Transfer ownership of the Town forestland on Town Farm Road to the Winchendon Conservation Commission for the purpose of conservation and preservation.

Any new lands that the Town acquires for protected open space or recreation should be transferred to the Conservation Commission.

Establish a local land bank or community land trust as authorized under the Community Preservation Act.

Encourage the Winchendon School system to become involved with the Outdoor Classroom Program offered by the Executive Office of Environmental Affairs.

Land Use Plan – Update

The land use plan element identifies present land use and designates the proposed distribution, location, and inter-relationship of public and private land uses. This element shall relate the proposed standards of population density and building intensity to the capacity of land available or planned facilities and services. A land use map illustrating the land use policies of the municipality shall be included.

Land use patterns develop along lines of least resistance – areas unconstrained by flooding, steep slopes, ledge, poor soils, etc. and in accord with the needs defined by the use. Watercourses are often the sites of industrial activity, while flat, open ground was traditionally

devoted to agriculture.

Through time, societal values and technological changes cause an evolution of the type and location of land uses. For example, industrial technology rendered waterpower obsolete and societal pressure made it illegal to dump untreated industrial wastes into the watercourses upon which the buildings were built. Thus waterfront property is no longer attractive to industrial development, although many of the buildings still remain. Likewise, agricultural land is now quickly consumed for residential development so long as site conditions are suitable for sewage disposal and potable water is readily available. This poses yet more societal conflicts, for now the rural character of the Town is sacrificed, open space is consumed, and prime agricultural soils are lost.

Present Land Use

Winchendon's existing land use pattern reflects that of a typical New England industrial town with a high-density village center and decreasing density of development with increasing distance from the village. Waterville, to the west of the downtown, and Spring Village, to the northeast of the downtown, are two secondary villages with small scale commercial activities, some industry, and high density residential uses. Lake Monomonac, which is in the extreme northeast of the Town, is also the site of high-density residential development, mainly due to the conversion of small, seasonal structures to year-round residences.

Detached, single family homes are the primary land use in Winchendon today. New lots for this type of development are created either in a subdivision or as "Approval Not Required" (ANR) lots. ANR lots are those that have frontage along an existing road. Subdivisions create lot frontage by constructing new roads. The most recent subdivision is the 15-lot Toy Town Heights off of Ash Street. Benjamin Hill Estates (50 lots) and Watatic Woods (40 lots) are still under development. Winchendon Heights (90 lots) has not been completed, but is inactive at the present time.

ANR development has consumed many miles of frontage on Ash Street, Teel Road, Baldwinville State Road, Baldwinville Road, Town Farm Road and Mellen Road. West Street, Bosworth Road, Royalston Road North, and Brooks Road are likely to see an increase of new ANR lots in the near future.



There are advantages to each type of development. Subdivisions tend to be more expensive because they require installation of roads and services. The subdivision regulations define the required improvements, call for a development schedule and timeline, and secure the requirements with cash, performance bonds, or a covenant. This in turn translates into higher cost houses. New roads, once accepted, mean more maintenance and plowing costs for the Town.



ANR development, on the other hand, is much less regulated by the Town, which translates into lower development costs and usually lower cost houses. However, this type of development turns narrow, back roads into “commuter arteries” and sacrifices the rural appearance of the area by cutting the large trees along the road and breaking through old stone walls. In addition, many new driveways are located on blind curves and where there are less than optimum site distances.

As the soils map shows most of Winchendon’s soils are considered “severely constraining” for on-site septic systems. Soils that are severely limiting possess properties that are “so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required.” (*Interim Soil Report for Northwestern Worcester County Massachusetts, USDA Natural Resources Conservation Services*) Winchendon also has a high water table in many areas. Since most of the Town’s new residential development is occurring outside of the water and sewer district, there are many raised or “mounded” septic systems being constructed to comply with the Title V requirements. The Town’s wastewater treatment facility is unavailable at present, so extension of the collection system is not possible.

Winchendon’s commercial land use is limited to the downtown, Waterville, and Spring Village, with a sprinkling of businesses along the gateways. Industrial development is located in the northern part of the town in the Town’s industrial park, at Ray Plastics in Spring Village and several firms in Waterville. Silent testimony to past industries exists in large abandoned buildings such as the Glenallen Mills building off of Glenallen Street. Surrounded by residences, this building is unsuitable for its former industrial capacity.

Outdoor recreational uses dominate the southwestern border of the Town in the Lake Dennison recreational area and surrounding flood control/wildlife management area.



There are two working dairy farms in Town: Murdock Dairy, which is located near the downtown on 300+ acres; and Smith Country Cheese, which is located on the southern border of the Town. Both farms are valuable assets to the Town. Murdock Farm keeps a large number of acres open and undeveloped and the associated dairy bar is a part of many residents' fond memories. The farm is also located close to the center of town and near the Memorial Elementary School, making it highly visible for both tourists and as an educational resource. Smith Country Cheese occupies a much smaller parcel of land but provides employment, is a stop on many "wine and cheese" tours, and brings the name of Winchendon to Boston area markets.

The balance of the Town is undeveloped forest interspersed with water bodies and watercourses.





According to the *Greater Gardner Sustainable Growth Management Plan (1999)* Winchendon has 18,423 acres of developable land (see Table 1).

Table 1 Town Land Area

Total Town Area:	28,222 acres
Developed Land:	2,938 acres
Protected Open Space:	4,989 acres
Wetlands and Water:	1,439 acres
Other*:	434 acres
Developable Land:	18,423 acres

*Other land includes areas not correctly represented by the geometry of the data and is essentially a rounding correction

Under current zoning, the *Plan* predicts buildout to result in 9,248 new dwelling units, 9,053,888 square feet of commercial use, and 14,504 square feet of industrial use. The population would grow to 28,000 and see 8,200 new school children. Commercial development will be concentrated in strips along the Towns gateways, while industrial development will be located in the two industrial zones in the north central and southeastern parts of the Town. Residential development will continue on ANR lots until the available frontages are consumed. It will then continue as subdivisions of the remaining backlands.

The effects of this projected growth – loss of open space, degraded water quality, increased traffic on narrow roads, alteration of Town character – will be felt long before the Town reaches buildout. (*GGSGMP, 1999*)

Proposed Distribution, Location, and Inter-relationship of Public and Private Land Uses

Winchendon wants to retain its rural New England character for aesthetic and economic reasons. Development of a tourist-based economy relies heavily on the balance of aesthetics and availability of services. Future land use patterns should therefore fit the pattern of villages surrounded by less dense development with a forested undeveloped outlying border. A mixture of residential and nonresidential uses on

small, narrow lots with small-scale buildings set close to the road should be encouraged in the villages. The villages should be “pedestrian-friendly”. Uses should accommodate residents on foot. This village concept exists in the downtown, in Waterville, and in Spring Village, and should be encouraged to grow in this manner. Minimum lot sizes, setback requirements, and maximum height restrictions should be examined and modified to allow for this type of development. Town water is available in all village areas. Town sewer is available in the downtown and in Waterville. Sewage disposal needs in Spring Village should be accommodated by shared systems if extension of the municipal sewer line is economically unavailable. The “village concept” might also be explored in the vicinity of Gardner Road and Spring Street (refer to Future Land Use Map). Village centers should contain a wide mixture of uses including high-density residential, commercial, industrial, and municipal (i.e. government, law enforcement, schools, libraries, etc.).



Strip commercial development should be avoided. Large commercial operations wishing to locate in Winchendon should be encouraged to occupy existing structures within the village centers.

Residential development in areas outside of the villages should decrease in density as distances from the villages increase. Cluster developments should be encouraged and linked together by their open spaces by multi-use trails. Shared, decentralized septic systems* should be required to avoid possible groundwater contamination resulting from smaller lots. To protect the remaining rural roadways and reduce traffic safety hazards curb cuts should be limited to an agreed upon standard.

**Decentralized wastewater systems are viable, long-term alternatives to centralized wastewater facilities, particularly in small and rural communities [and] can be designed for a variety of site and soil conditions, including shallow water tables, bedrock, and small lot sizes.”*

–U.S. Environmental Protection Agency, 1999

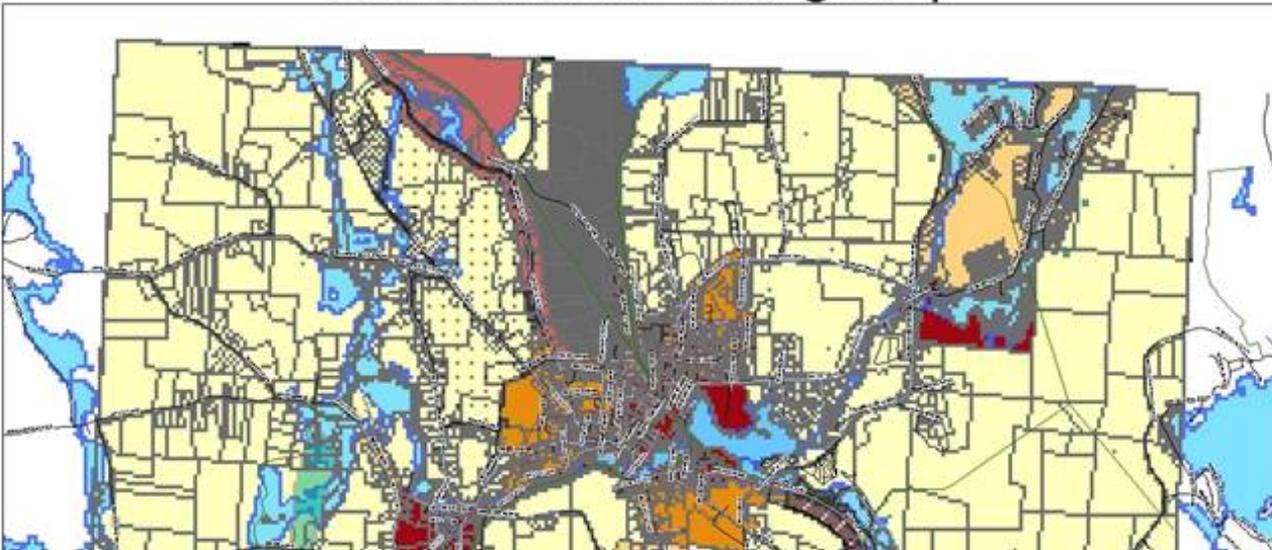
Large lot sizes (10+ acres) and large frontage requirements should be used to protect extreme outlying areas that are still largely undeveloped. Residential development should be discouraged. These lands should be devoted to forestry, hunting, hiking, aquifer protection, and wildlife preservation. The purchase of development rights or the transfer of development rights to areas closer to the

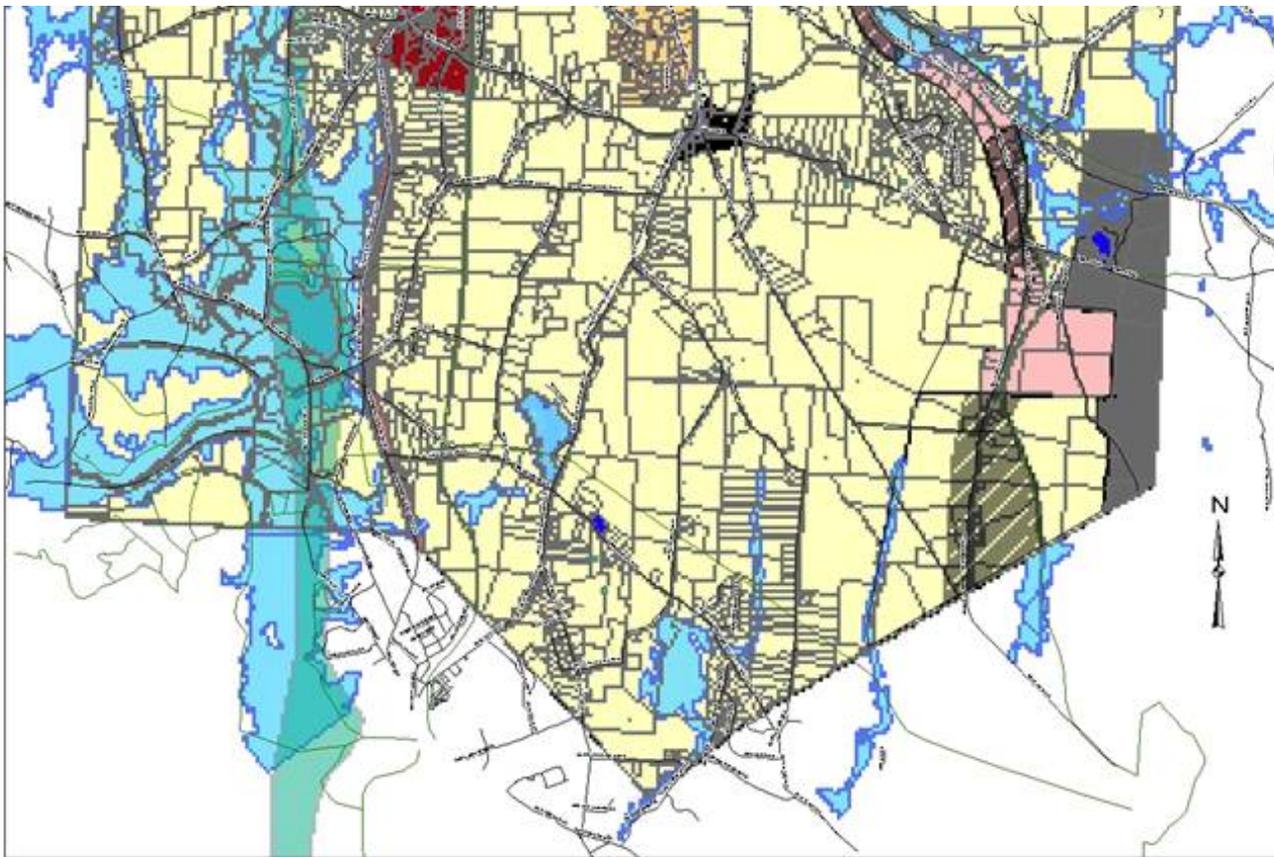
village districts should be employed to achieve this goal.



The Town has zoned most of its land for residential use. This may not be in the Town's best interest as buildout could overwhelm the Town's ability to service it. Therefore, the Town should consider balancing residential development with open space, agriculture, outdoor recreational, commercial, and industrial land uses.

Winchendon Zoning Map





0 0.3 0.6 1.2 1.8 2.4 Miles

Effective Date 5/24/06

DATA SOURCES MassGIS, MHD, the Town of Winchendon and the MRPC. **DISCLAIMER** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:

Montachusett Regional Planning Commission
 GIS Department, May 2006
 R1427 Water Street
 Fitchburg, MA 01426
 Phone: 978-345-7376
 E-mail: mrpc@mrpc.org



Legend

- sewer
- waterlines
- Roads and Streets
- TrailInventory
- CertifiedVernalpool
- PotentialVernalPool
- GROD
- Gateway Overlay
- parcels
- Aquifer
- Flood_Plain
- Historic District
- C1-Highway_Commercial
- C2-Neighborhood_Business
- Planned Development
- Industrial
- Pond
- R80-Rural_Residential
- R40-Suburban_Residential
- R10-Neighborhood_Residential
- Winchendon_Boundary
- State Boundary

[Future Land Use Map](#)

ECONOMY MODULE

Module intending to develop a whole economy rather than an individual series of economic inducements to attract a few companies, akin to a whole industry like silicon valley or green technologies, rather than a couple of companies. In this module, 1) to balance out the size of the modules and 2) to underscore the needs of certain components critical to our current Economy Development goals, we will add circulation and education to this module. [Economic Backdrop](#), [Economy Development](#) ([Supply Stream](#), [Tourism](#), [Industrial Expansion](#), [Target Areas/Nodal Development](#)), [Circulation](#) (General Needs, [Multimodality](#), [Target Areas](#)), [Education](#) as a resource for Economy Development.

Economic Backdrop

The economic backdrop sets the stage and describes the elements necessary for understanding the local economy.



In its early years, Winchendon was an agricultural town. By the early decades of the 19th century, however, industrial activity began to appear along the Millers River. In its heyday, Winchendon industries produced vast quantities of yard goods, wooden barrels, clothespins and so many shingles that the Town earned the nickname “Shingle Town”. Winchendon also played a key role in the evolution of woodworking machinery. The rotary-head cylinder planer was actually created in Winchendon. The town was also home to several tanneries and dairy industries. With the appearance in 1914 of “Clyde” the wooden rockinghorse, the Town became known as “Toy Town”.

Today, economic activities in Winchendon are based on the trades, manufacturing, government, and services.

Table 2

<i>Winchendon's Labor Force*</i>	<i>1990</i>	<i>1999</i>
Employed	4011	4066
Unemployed	336	167

<i>Winchendon's Unemployment Rate*</i>	<i>1990</i>	<i>1999</i>
Winchendon	7.7%	3.9%
Statewide	6.0%	3.2%

Employment*

	Agri- Culture	Govt	Const- ruction	Manuf- acturing	TCPU	Trade	FIRE	Services
1990	conf.	319	76	302	50	488	101	318
1998	conf.	395	82	289	121	487	72	366

**Commonwealth of Massachusetts, Division of Employment and Training*

TCPU = Transportation, Communication, and Public Utilities

Conf. = data suppressed due to confidentiality

FIRE = Finance, Insurance and Real Estate

The average annual wage has risen from \$15,842 in 1990 to \$23,424 in 1998. The largest employers in Winchendon are the Town, Ray Plastic, Rural Housing Improvement, Kamenstein, Inc., and the Winchendon School.

1990 census shows 77% of Winchendonians had attained at least a high school diploma; only 12% attained a bachelor's degree or higher. 80% of Winchendonians traveled less than 34 minutes to their place of work in 1990. These statistics suggest that Winchendon's labor force may not be commuting to the higher paying high tech jobs to the east. This may be due to a lack of higher education and/or appropriate training.

During the recession of 1988-1991, 41,300 jobs were lost in the Central Region of Massachusetts. 30% of the total job losses were in manufacturing; 50% were in construction. With a decline in new home construction, employment in the furniture business dropped by 45%. These losses have not yet been completely recovered, nor are they likely to in the near future. Service jobs sustained the least severe losses during this period. Health, private education and engineering service jobs actually increased. (*Economic Development Strategy, 1996*)

Winchendon, then, is faced with the need to create job opportunities equivalent to those that were lost in the recession in order to meet the immediate and short-range needs of its existing labor force. Long range planning, however, demands that the Town also strive to raise the average level of education of its labor force so that the Town is able to attract and compete for the higher-paying, college-dependent jobs.

The 1996 Economic Development Strategy suggested [tourism](#), [downtown revitalization](#), and [industrial expansion](#) as ways of meeting Winchendon's economic development needs. The Town still strongly favors these strategies (*Planning Board Survey, 1999*).

Economy Development

The economy development element identifies policies and strategies for the expansion or stabilization of the local economic base and the promotion of employment opportunities

Industrial Expansion and Supply Stream Planning

The establishment of the Industrial Park on Lincoln Avenue Extension was a direct implementation of the 1996 Economic Development



Strategy. There is paved access to all of the parcels in the Park and municipal water and sewer services are available as well. However the Town does not own any of the land within the Park and there is no Industrial Park Commission to oversee its marketing and occupancy.



In 1997, the Massachusetts Office of Business Development designated four areas in Town as Economic Opportunity Areas. These included the Industrial Park, the Whitney Pond area including the former Whites Mill, MyLec/Winchendon Springs area, and the industrially zoned areas on Route 140. This designation allows the Town to offer tax incentives to prospective businesses or industries that may wish to locate in any of these areas.

The industrially zoned areas on Route 140 are difficult to market, however, due to lack of Town services and because of the abundance of available, serviced industrial land along the Route 2 corridor to the east.

A strong economy is critical to the vitality of any community. So too is the ability of the Town's people to live and work in close proximity. The fabric of our society rests on family members across generational lines remaining near one another. Also, any town that relies on volunteers to fulfill many of its municipal obligations must take these factors into account. People who must travel great distances to their jobs have little or no time to contribute to local affairs. It is therefore in the Town's best interests to work to attract good paying jobs for its residents.

Tourism

Creating a tourist economy involves building on existing attractions and creating new ones. Existing attractions include outdoor recreational activities, e.g. Lake Dennison, and general hunting, fishing, canoeing and bike riding opportunities, and ongoing festivals and events such as the Summer Solstice Celebration at the Clark Memorial and the Chili Cook-off.

New attractions to be created might include development of the Toy Town theme attractions (such as, and in addition to, the *Top Fun* Aviation Toy Museum that recently opened in the Old Murdock High School), an Historical Museum at the Whitney House, the North Central Pathway, an Historic Downtown Village District, and recreation opportunities at Whitney Pond. The opening of the State Veterans' Cemetery will hopefully help to create tourism traffic as well.

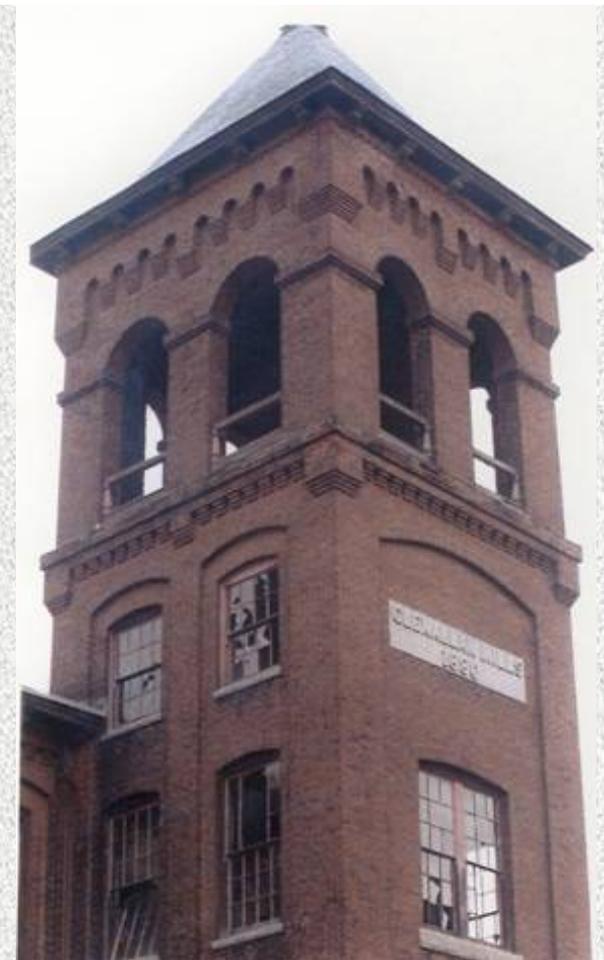
CIRCULATION

The major traffic artery through Winchendon is Route 140 to Route 12 north. The second major artery is Route 202. Glenallen Street from Route 12 to Winchendon Springs also gets a lot of traffic. Another road that is important is River Street to Royalston. Of lesser importance are High Street, Old Baldwinville Road and Otter River Road as an access out of town and also as a main route for the many residents in that area. Another road that helps bring out of town people in is Robbins Road. The last important road corridor is Central Street, Elmwood Road and Forrestall Road. This corridor pulls many people out of Winchendon for shopping in Rindge, although the Central Street/Elmwood Road portion provides the main access to two of Winchendon's schools.

Roads

Winchendon is served by two state numbered highways (Routes 12 and 202) that provide links to New Hampshire, Vermont, and other communities in the region. Route 140 is a state numbered road, but is under the Town's control. Roads are classified as local, major/minor collectors, and principal/minor arterials.

Winchendon Road Inventory*





Principal arterials 9.39 miles

- Front Street (Route 202)
- Gardner Road (Route 140)
- School Street (Route 12)
- Spring Street (Route 12)

Minor arterials 1.05 miles

- Spring Street (Route 12)

Major collectors 11.21 miles

- Baldwinville State Rd. (Route 202)
- Central Street (Route 202)
- Glenallan Street (Route 202)
- Main Street (Route 202)
- Maple Street (Route 202)
- River Street (Route 202)

Minor collectors 10.20 miles

- Central Street
- Elmwood Road
- Front Street
- Glenallan Street
- Hall Road
- High Street
- Old Baldwinville Road
- Teel Road

Local Roads 86.07 miles

Total 117.91 miles

Administrative System*

Unaccepted	4.05 miles
Massachusetts Highway Department	12.24 miles
Town Accepted	93.04 miles
State Park	5.47 miles
Total	114.80 miles

*MassHighway Road Inventory, January 30, 1997

Road Maintenance

The Town's road reconstruction/maintenance policy, which was adopted in March of 1999, makes the Town responsible for "maintaining safe and effective public highways for use by the general public". The policy requires implementation of the "Road Surface Management System (RSMS)", a computer based tool for aiding in the development of a five-year program for the maintenance, repair and reconstruction of the Town's roads. The five-year program is to be updated annually by the Town Manager and the Superintendent of Public Works and is to be included in the annual budget. Implementation of this policy is projected to begin in January, 2001, following completion of the data input to the RSMS. DPW will thereafter strive to achieve and maintain all roads at 75% of their best condition (0% being their worst condition, 100% being best condition). At present, there are 38 streets in Town that are in poor condition (*i.e. those in need of major reconstruction*), sixty-four streets in fair condition (*i.e. in need of extensive repair of old surfaces*), and 65 streets in good condition (*i.e. only normal maintenance is needed*). Roads in need of major reconstruction will require capital improvement funds, while those requiring only maintenance are eligible for Chapter 90 funds.

Resurfacing of and related work to Glenallan Street from Maple Street to the New Hampshire State line and improvements to the bridge over the North Branch of the Millers River are proposed for Fiscal Year 2001 on the FY 2001-2006 Transportation Improvement Program (TIP). The related work will include drainage improvements and realignment of portions of the road to improve sight distances. There will be a 12-ft. travel lane and a 10-ft. breakdown lane. The intersections at Maple Street, Monomac Road West, and Mill Circle will also be improved.

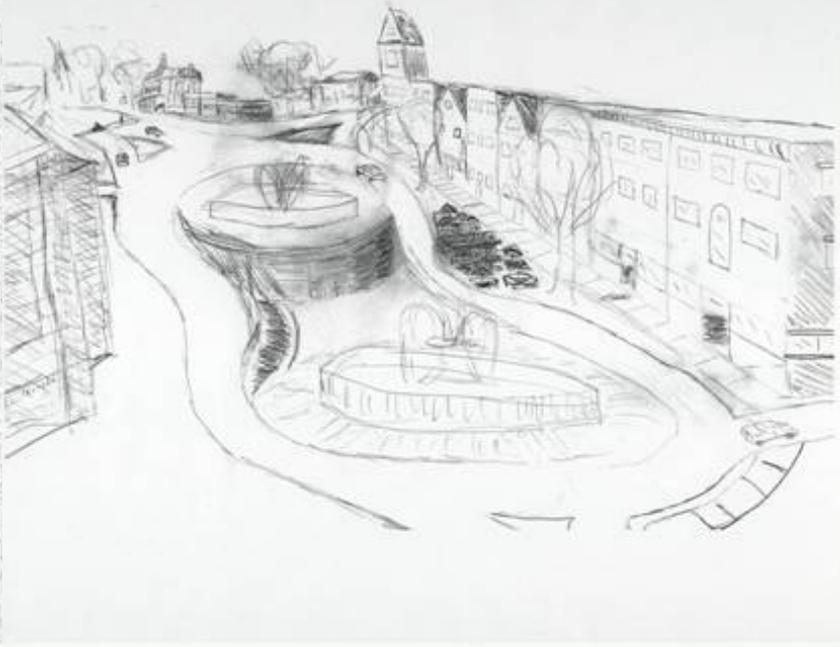
The Town would like to turn control of Route 140 back to the State. If acceptable to all parties, the Town will pay for the cost of engineering the reconstruction of the road (approximately \$100,000) and the State will assume all future responsibility for the road, including its reconstruction and all future maintenance and plowing.

INTERSECTIONS

Intersections of concern to the Town are at Blair Square (Central/Spring and Front Streets), the square at the top of Tannery Hill (River/School and Front Streets) and the Route 12/Route 140 intersection. According to the draft TIP FY 2001 – 2006, a traffic signal is to be installed at the intersection of Routes 12 and 140 during fiscal year 2002. Blair Square and School Square are both complicated intersections that have been studied by the Montachusett Regional Planning Commission (MRPC, 1995). Improvements in traffic flow and safety could be improved with the following changes:

Blair Square

- Eventually create road re-alignment and re-routing or a roundabout to process traffic slowly and smoothly and allow for safer automobile, pedestrian and bike crossings.
- Phase in the development to allow for directing traffic in similar patterns to the eventual re-routing or roundabout through the use of strategic one-ways – both for cost and traffic management in the long-to-realize project.



traffic along Spring Street heading Downtown.

- Widen the bridge and make this route the Rt. 202 bypass.

Spring, Water and Ash Street

- Eventually create a roundabout to process traffic slowly and smoothly and allow for safer pedestrian and bike crossings and slow traffic (viz. trucks) heading through the Downtown. It will also clarify the Water Street/Ash Street traffic pattern.
- By improving the intersection, now bicyclists and pedestrians (N.B. Winchendon School student crossing point) can get safely across

Top of Tannery Hill

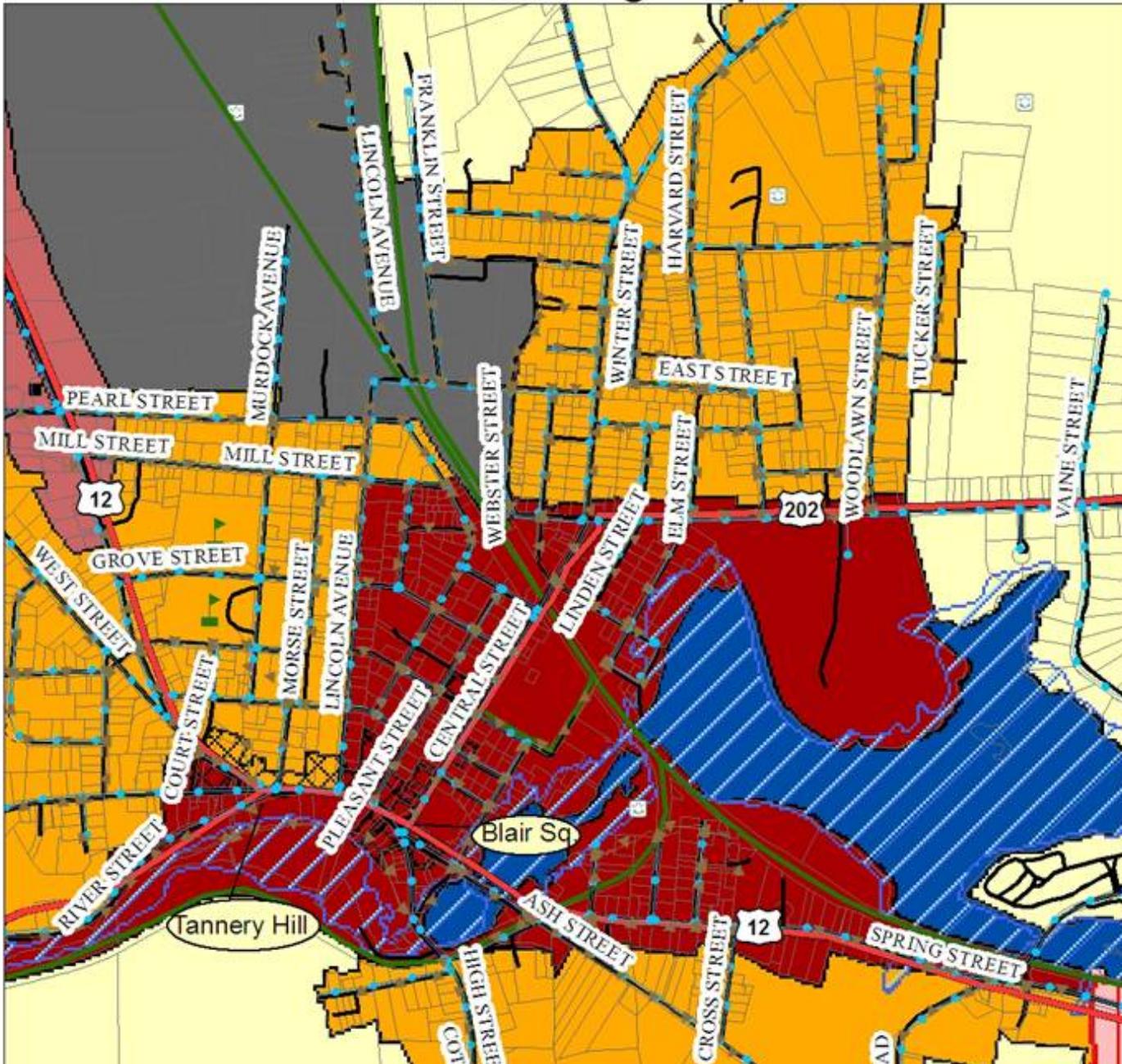
- Create two full lanes on Front Street north; one lane to be dedicated to northbound traffic turning left onto Tannery Hill, the other for northbound traffic flowing through onto School Street.
 - Eliminate the through nature of Front Street onto School Street, making the only access to School or River at School Square. Fix the visibility from School St. turning left onto Front Street.
- Since these two squares involve a state-owned highway, any plans for improvements will require state approval.

Glenallan Street Bridge

- Eventually create a roundabout to process traffic slowly and smoothly and allow for safer pedestrian and bike crossings, including specifically, the North Central Bike Path. This should also help to calm

Spring St. making Winchendon more [walkable](#).

CBD Zoning Map





Effective Date 1/29/07

Legend

—+— Sewer Lines	Zoning District
—+— Water Lines	■ C1- Large Scale Commercial
Roads and Streets	■ C2- Neighborhood Commercial
— Maintained, Paved	■ Planned Development
- - - Maintained, Gravel	■ Industrial
..... Not Town Maintained	■ Pond
— Highways	■ R80- Rural Residential
— Trail Inventory	■ R40- Suburban Residential
■ Schools	■ R10- Neighborhood Residential
■ Certified Vernal Pool	Zoning Overlays
■ Potential Vernal Pool	▨ Floodplain
□ Parcels	▨ Golf Residential
▭ Winchendon Boundary	▨ Gateway Overlay
— State Boundary	▨ Historic

Zoning information is valid for areas within the Town of Winchendon only.

DATA SOURCES: MassGIS, MHD, the Town of Winchendon and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:

Montachusett Regional Planning Commission

GIS Department, May 2006
R1427 Water Street
Fitchburg, MA 01420
Phone: 978-345-7376
E-mail: mrpc@mrpc.org



0 0.05 0.1 0.2 0.3 0.4
Miles



Traffic Flow

Heavy traffic flows exist on several of the Town's roadways, most notably Route 202 and Route 12. Route 202 flows from the Templeton town line through the downtown and along Maple Street to the New Hampshire border. It is the heavy flow through the downtown that has caused the greatest concern, particularly the volume of large trucks. Opinion is divided as to whether rerouting traffic away from the downtown to relieve congestion would be a detriment to the downtown businesses. **Nonetheless, a 202 truck bypass to the Glenallan Street Bridge has been proposed as through-trucks are problematic on Central Street. The Glenallan St. bridge and the intersection must be improved however to accommodate the re-routing.**

Traffic along the Glenallan Street corridor between Spring Street and Maple Street, across the Glenallan Street Bridge, and through the Glenallan Street/Spring Street intersection is also of concern with the coming Veterans' Cemetery and the commercial development taking place in neighboring Rindge, New Hampshire. The Veterans' Cemetery is projected to open in May of 2002. The entrance to the Cemetery is on Glenallen Street on a curve just below the crest of a hill. Sight distances are poor and traffic is known to travel above the posted speed limit. According to the Environmental Notification Form (ENF) (ENF, 2000) 360 vehicle trips per day could be generated by the Cemetery. Most of these trips will be funeral corteges that will arrive at the Cemetery at pre-planned times. The balance will be spontaneous visitors and employees. The Town will need to address these issues through the curb cut permit. The Town has also

appealed to Mass Highway and MRPC to make this corridor an urgent priority for improvements for FY2001 and 2002.

Parking

Public parking in the downtown is available on both sides of Central Street, on Pleasant and Front Streets, and behind Town Hall. The lack of available parking has been repeatedly cited as a hindrance to business development in the downtown. Solutions to the shortage could include maximizing space on Central Street by delineating the spaces on the ground, and by purchasing land as it becomes available for creation of public parking, such as Belletetes has done with the conversion of the former Pineault warehouse to expanded parking areas. The Town may also wish to pursue cooperative agreements with landowners to provide parking.

South Front Street and Converse Garden Parking

- In order to provide needed parking to the businesses and residences on the South side of Front Street and to provide parking and ADA accessibility to the upper terrace of the Converse Gardens a parking terrace is proposed between the South side buildings and the Converse Garden Terrace, called the “Z” parking lot for the former South side businessman who donated some land for the structure.

Sidewalks

Sidewalks are available throughout the downtown area and extend as far out as Winchendon Springs and Waterville. They vary in size and condition from the newly reconstructed five-foot wide sidewalk on Tannery Hill to those that are barely two feet in width, deeply cracked or collapsed, and sprouting grass. Sidewalks are an important facility to the Townspeople. (*Planning Board survey, 1999*) Those that exist need regular maintenance and repair. The number of people walking on roads where no sidewalks are available is increasing and the Town should consider extending them. At the present time the Town does not have a sidewalk repair/maintenance/reconstruction program, **but has replaced or improved some of the most critical sidewalks including along Spring Street East of Central Street.**

Bicycles & Pedestrians

Bicycle and pedestrian paths offer recreational opportunities and safe places for alternative forms of transportation for both residents and visitors alike. The North Central Pathway is a 16-mile long trail currently under construction linking Winchendon and Gardner. The 8-mile portion in Winchendon is a combination of 7½ miles of Class I Bicycle Path and ½ mile of Class III Bicycle Route. The bicycle path portion is located on former B & M Railroad beds that the Town now owns. The bicycle route follows ½ mile on the Old Gardner Road. Two miles of the Pathway have been completed in Gardner; 3 miles in Winchendon, the section paralleling Route 140 **is already constructed**. The engineering design for a 1.3-mile section of the Pathway between the Black Bridge and Glenallan Street should **has recently been completed including a detour to avoid a vernal pool bringing the path along the Whitney Pond shoreline**. The Bike Path Committee is currently searching for funding sources to complete construction of the remaining portions of the Pathway.

Winchendon has an abundance of abandoned railroad beds that could easily provide a hub of connecting bike paths to Fitzwilliam, Troy,

and Keene, New Hampshire, as well as connections to Baldwinville and points south of Winchendon. Development of this resource could provide a wonderful recreational opportunity for area residents and tourists and should be pursued.

Bridges

There are twelve bridges in Winchendon – the Town owns nine, three are owned by the State. (Table 13) The above ground portion of each bridge is inspected every two years by the State; inspection of the underwater portion is done approximately every 3-4 years. Inspection reports are forwarded to the DPW Superintendent. Each bridge has its own inspection schedule dictated by the State.

Table 13 Winchendon Bridge Inventory

<u>Bridge #</u>	<u>Street Location</u>	<u>Water Course</u>	<u>Year Built</u>
W39001	Harris Road	Tarbell Brook	1940
W39004	Glenallen Street*	Whitney Pond	1939
W39005	River Street	Millers River	1958
W39006	Brown Street*	Millers River	1964
W39007	River Street*(Centerville)	Millers River	1932
W39012	Spring Street*	Hunts Pond	1930
W39013	High Street	Hunts Pond	1973
W39015	Royalston Road North	Tarbell Brook	1980
W39018	Glenallen Street	N. Branch Millers	State
W39035	Spring Street	Millers River	State (under construction)
W39036	Monomonac Road West	N. Branch Millers	1977
W39039	Spring Street	Millers River	State

* Denotes George M. Whitney bridge

Routine maintenance and repair work are done as needed and are funded through the Town's operating budget. The repair and maintenance of the George M. Whitney bridges are subsidized by a trust fund. Major reconstruction costs can be funded by Chapter 90 funds; however, the funding must be shared with road reconstruction costs. Therefore, a Capital Improvement Program should be established to provide matching funds for any major bridge work that might arise. Establishment of a Capital Improvement Fund in no way jeopardizes the Chapter 90 allocations to the Town. The cost of repairs arising from accidental damage to any of the Town's bridges is reimbursed through the Accident Recovery Program and through the Town's own insurance coverage. At the present time, none of the Town's bridges is in need of major reconstruction or rehabilitation. The Glenallen Street bridge over Whitney Pond (#W39004) will need to be widened with the expected increase in traffic from the pending Veterans' Cemetery. Removing the sidewalk rather than actually reconstructing the bridge may accomplish the necessary widening and would be much less expensive. The sidewalk could be reconstructed on the outside of the bridge as a caged catwalk. As this bridge is a Whitney Bridge, the cost of the widening would be subsidized by the trust fund.

Railroads

Railroad services move passengers, as tourists, business people, and commuters, and freight, as supplies for manufacturing and finished products. The availability of rail services can have a serious impact on the type of manufacturing that can take place within a town, the mobility of people without automobiles and the number of residents that can commute to their jobs.

Neither freight nor passenger rail services are available in Winchendon. The Providence and Worcester Railroad Company brings freight services as close as Gardner, while Amtrak provides passenger services in Worcester and Brattleboro, Vermont. The Metropolitan Boston Transit Authority commuter trains are available in Fitchburg. **A new Gardner Railroad Station is in the works and should be a closer connection to the railways than Fitchburg and for the commute to the Greater Boston Area.**

Taxis

The Winchendon & Ashburnham Cab Company is the only taxi service based in and serving Winchendon. Karl's Automotive offers prearranged airport transportation services to Logan, Bradley, and T.F. Green airports. These services are vital to business and tourist traffic.

Airports

The Gardner Airport in Templeton is the nearest airport to Winchendon. It has a single north-south, 3000-ft. asphalt runway with non-precision instrument approach available. This airport offers flight instruction for general aviation and ultralight aircraft. The airport services business and private flights, but there are no businesses based at the airport. At the present time, this airport is used for sport and recreation, and not for movement of goods or freight. This facility has recently come under new management and has immediate plans to expand their available services. This could prove to be an important transportation link for Winchendon by providing transportation to prospective business travelers.

The Fitchburg Municipal Airport is a general aviation facility. It handles approximately 85,000 flights per year on 2 asphalt runways (4,511' and 3,502' long). There are two Fixed Base Operators and one small charter service located at Fitchburg Airport. This facility provides major and minor aircraft repairs, storage, tiedowns, flight instruction, and charters. The charter service is directed toward corporate and business travel. *(MRPC 1997 Regional Transportation Plan)*

Buses

The Vermont Transit Company offers services from points in Vermont and New Hampshire along the Route 12 corridor via Winchendon to Gardner, Fitchburg, Newton, and Boston.

Weekday bus services are available in Winchendon that provide transport between Gardner and Greenfield. This **MART** service is operated jointly by the Montachusett and Franklin Regional Transit Authorities and **was** funded through a 3-year grant from the Federal Transit Administration that became effective in October 1999. Passengers may connect with the buses at established bus stops along the various bus routes. Residents in outlying areas or those unable to reach bus stops can be accommodated by the Dial-a-Ride transportation

services provided by Community Transit Services. It is also possible to reach the commuter rail services in Fitchburg via the **MART** buses. It is thus possible to commute to points in Boston from Winchendon using public transport. **The Town recently installed a new bus stop shelter next to Town Hall and the MART route is now being revisited to cater to newer demands of its potential ridership.**

After the 3-year grant runs out, each of the towns will have to agree to pay an assessment to continue the bus routes. The total assessment for each town will be based on the number of miles the bus runs in the town. Winchendon, Templeton, and Gardner will all have to agree to pay the assessment to keep the Gardner-Winchendon bus running.

At the present time, there are 300 riders per month on the Gardner-Winchendon route. Most of these riders are from Winchendon. There are 1,000 riders per month on the Gardner-Orange route.

Bicycles & Pedestrians

Bicycle and pedestrian paths offer recreational opportunities and safe places for alternative forms of transportation for both residents and visitors alike. The North Central Pathway is a 16-mile long trail currently under construction linking Winchendon and Gardner. The 8-mile portion in Winchendon is a combination of 7½ miles of Class I Bicycle Path and ½ mile of Class III Bicycle Route. The bicycle path portion is located on former B & M Railroad beds that the Town now owns. The bicycle route follows ½ mile on the Old Gardner Road. Two miles of the Pathway have been completed in Gardner; 3 miles in Winchendon, the section paralleling Route 140, are scheduled to be constructed in the Spring of 2001. The engineering design for a 1.3-mile section of the Pathway between the Black Bridge and Glenallan Street should be underway in the Fall of 2000. The Bike Path Committee is currently searching for funding sources to complete construction of the remaining portions of the Pathway.

Winchendon has an abundance of abandoned railroad beds that could easily provide a hub of connecting bike paths to Fitzwilliam, Troy, and Keene, New Hampshire, as well as connections to Baldwinville and points south of Winchendon. Development of this resource could provide a wonderful recreational opportunity for area residents and tourists and should be pursued.

SOCIAL MODULE

This module discusses the services and functions provided by the Town and a concern for enhancing the quality of human inter-relationships in Winchendon. Sections include: [Communication](#), [Housing](#), [Services](#), [Police](#), [Fire](#), [Health](#), [Education](#), [Utilities/\(UG\)/ Power Generation](#).

Communication

As mentioned in the Introduction to the master plan, devising an effective communication mechanism with the public is a requisite. There must be a process for the Master Plan rewrite and then a process to communicate and disseminate the results with the public. Communication must be two-way, with public participation both as stakeholders with interests in and expertise in the results and to facilitate buy-in for the final product, which will inevitably contain compromises that will not please some, but will be satisfactory if the

process is understood and accepted. This master plan should be capable of sending the interrogator to the pertinent information, acting as a default [UDO](#). It should be set up as an html document with definitions and cross-referencing as a routine part of any query. The document should have each section as a severable stand-alone module and can be updated accordingly. Thus, the framework for the master plan does not need to be revisited every 5 years, rather sections will be made compliant or reconceived on an as-needed or as-desired basis. Once in place, updates of the Master Plan should include tracking of performance and should be communicated to the public. The posting of the master plan itself should be on the Town website and possibly on internal firewalled networks (see below).

Furthermore, in general, communication with the public must be improved apart from the plan itself. Elements could include voting machines that can double as touchscreen information kiosks and town communications when not in use as voting machines. These should be located at nodes and at a proportion relative to population density. Citizens should have multiple channels of input including but not limited to the kiosks and web from home, participation in the local redevelopment authority and more traditional communication with the town hall. The Town could provide a webmail account for citizens accessible through these information kiosks and/or the library and/or the Town Hall. These would be filtered since their principal function is to inform the public about Winchendon matters, not Worldwide Web matters.

Housing

The housing element identifies and analyzes existing and forecasted housing needs and objectives including programs for preservation, improvement, and development of housing. This element shall identify policies and strategies to provide a balance of local housing opportunities for all citizens.

Historically, residents who worked in the local manufacturing industries lived in houses built and sold at prices that could be supported by the local economy. However, local manufacturing jobs have disappeared and been replaced by lower paying, service-type jobs. Conversely, new residential development has been provided to meet the needs and desires of an incoming population that resides in Winchendon, but works in other communities. These new residents typically hold higher paying jobs to the east of Winchendon and are therefore able to afford higher housing costs than local residents do. Providing affordable housing to local Winchendon residents may require a broad variety of housing types to meet local needs.



Affordable housing is defined as costing no more than 30% of gross household income. The cost for affordable housing includes utilities, mortgage, principal, interest, taxes and insurance for homeowners, and rent and utilities for rental units.

The median sales price of a single family home in 1990 was \$88,500 (Banker & Tradesman). The median household income at that time was \$32,362. With a 10% down payment, an 8% interest rate on a 30-year mortgage, and approximately \$130 per month in taxes and insurance costs, the monthly payment comes to \$722. 30% of \$32,362 is \$809 per month; therefore \$722 was affordable at that time.

The median household income in 2000 is projected at \$48,000 (HUD). The median sales price is now \$112,500 (Banker & Tradesman). With an 11% down payment, 8% interest for 30 years and \$135 per month for insurance and taxes, the monthly payment comes to \$881. 30% of \$48,000 is \$1200; thus the median price of housing is still within the affordable range.

Existing Housing

Single family housing units comprise the greatest percentage of the housing stock in Winchendon. In 1990, single family units were 64% of the total housing stock. They increased to 86% of the stock in 2000, according to Assessors' records.

Single family housing is evenly distributed throughout the Town. There is a greater density of units in the central core of the Town due to the smaller lot sizes and age of the developments. 2- and 3- family homes are widely scattered around the Town, while buildings containing more than 4 residential units appear to be confined primarily to the central core.

According to the U.S. Census, there were 3 building permits granted for multi-family structures between 1990 and 1999. In that same period, there have 444 permits granted for single family homes. New residential construction, then, is almost exclusively limited to single family dwellings.

45% of Winchendon's housing units were built in 1939 or earlier; 22% were built between 1980 and 1988. Older housing requires greater levels of maintenance and often needs substantial upgrading for energy efficiency and livability. Housing built today is often subject to quality issues due to too-fast construction, lack of timely inspections and poor quality materials.

Assessors' records indicate that 72% of the housing stock is average quality (C- rating). Housing quality is a standard that describes how a house was built, i.e. the quality of the materials and the quality of the construction itself. The Assessors also measure housing condition. Condition describes the physical state of the structure at the time of the assessment. 53% of the Town's housing stock is in good condition.

The cost of residential land and structures increases with increasing demand and decreasing availability. As local manufacturing jobs continue to decline and local jobs continue to be concentrated in the service sector, it will become more difficult for local Winchendon residents to purchase the traditional detached, single family home and work in the Town.

Winchendon Housing Stock

				1990 <i>(U.S. Census)</i>		
Year	Total Units	Occupied	Vacant	Median Year Structure Built	Median Value	Median Sale Price
1990	3349	3052	297	1950	\$112,200	\$88,500

According to the 1990 census, 42% of those renting in Winchendon were paying between \$400 and \$600 per month for rent. Using the 1990 median income stated previously, these rents are within the 30% affordability range. The 1999 Planning Board survey indicates that 42% of renting respondents pay more than \$450 monthly rent.

Currently the Winchendon Housing Authority owns 245 residential units in Winchendon. They also manage another 35 Section 8 Housing Choice Vouchers. The Rural Housing Improvement (RHI) owns 26 condominium units and manages 10 others in the same complex. These units provide unsubsidized affordable housing to lower income families and individuals. Additionally, RHI manages 19 various Section 8 Housing Choice Vouchers, certificates, and Modern Rehabilitation rental units throughout the Town.

Housing Satisfaction 1999*

Availability

Elderly Public Housing	<i>mostly adequate – about average</i>
Affordable Housing	<i>mostly adequate – about average</i>
Affordable Rental Housing	<i>about average – somewhat inadequate</i>
Low Income Housing	<i>about average</i>

**Planning Board Survey, November 2000*

Real Estate demand and sales indicate that at the present time, the greatest housing demand is for detached single family homes, 1600-2000 sq. ft. in size, on 1-2 acre lots and costing between \$120,000 and \$150,000. The availability of existing houses is too limited to provide a viable choice to prospective buyers. Thus, the demand for housing is met through new construction, typically on ANR lots in the outlying districts of the Town. New construction is limited, however, due to the building cap in the zoning bylaws. *(Sparks Realty, Morin Real Estate interviews, June, 2000)*



The Winchendon Housing Authority supplies low and very-low rental housing in Winchendon and surrounding communities. At present, the WHA feels that they are meeting the need for affordable rental housing in Winchendon. *D. Connors, WHA Executive Director, Interview, June 2000*

Projected Housing Needs

Using mid-level population projections (*MISER*), there will be 247 new housing units needed by the year 2005. At 69% owner occupancy rate (*1990 U.S. Census*) there will need to be 170 owner occupied housing units and 77 rental units. Under current zoning, it is most likely that these new homes will continue to be single family detached dwellings located on 1-2 acre ANR lots in the outlying districts of the Town with on-site water and septic systems. This means 170-340 acres of land and 5-6 miles of road frontage would be consumed to meet this need. With a projected median income of \$53,000, these homes would need to cost approximately \$140,000.



New rental housing will most likely be provided by the conversion of existing older, larger homes in the central part of Town, as these structures are not being sold easily as single family homes at the present time and the trend is likely to continue. As rental housing becomes more expensive to the east (Fitchburg & Gardner), the need for more affordable rental units will increase in Winchendon. Conversion of these existing structures will most likely be the most economically attractive option.

Elderly housing needs are conflicting. The Winchendon Housing Authority asserts that additional housing units could be easily filled if available. (These would be voluntary occupancies – not emergency homeless needs.) However, *MISER* projects that in the period of April 1, 1990 to July 1, 2010, there will be a 10% - 40% decrease in the proportion of persons aged 65 and over.

Winchendon has a strong desire to maintain its rural New England character and preserve its sense of community. An adequate supply of safe, attractive, good quality homes, at prices supported by the local economy helps maintain and strengthen community continuity. Families can grow and remain within reach of one another, while those who live and work in the same community maintain a sense of

community “ownership” not witnessed in other types of communities.

Programs for Preservation, Improvement, and Development of Housing

The Housing Rehabilitation Program, operated by the Town’s Community Development Office, is the only program for the preservation and improvement of Winchendon’s housing. The Program provides loans to qualified low- and moderate-income owners of substandard housing units located within a HUD-designated target area. *(See map)* The Community Development Office determines the repair needs. The Program focuses on violations of the Massachusetts Building Code and sanitary regulations, and HUD Section 8 Safe Living Standard Codes. Funds for this program are available through grant applications on an annual basis.

Substandard septic systems are repaired through Title V funding, available from the Massachusetts Water Pollution Abatement Trust Agency and administered by the Town’s Community Development Office.

RHI manages and implements additional programs for income eligible person, families, or property owners who are renting to eligible persons. They are “Get the Lead Out” for de-leading; “Home Modification” for modifying existing structures for persons with disabilities; and the Home Improvement Loan Program, which may include energy efficiency improvements. All of these are low - interest loan programs.

Housing Goals

Provide a variety of housing options to meet the needs of a population with a wide range of financial means and lifestyle choices.

Promote high quality new housing construction to ensure durability and lasting value of the town’s housing stock.

Direct the location of new housing construction so as to maintain existing open space & rural character and promote efficient distribution of town services, such as road maintenance, fire protection and school bus routing.

Promote compact growth centers.

OBJECTIVES

Maintain 10% affordable housing inventory. Affordable housing should be available in all forms – detached single family houses, townhouses, condominiums, mobile homes, and multi-family structures.

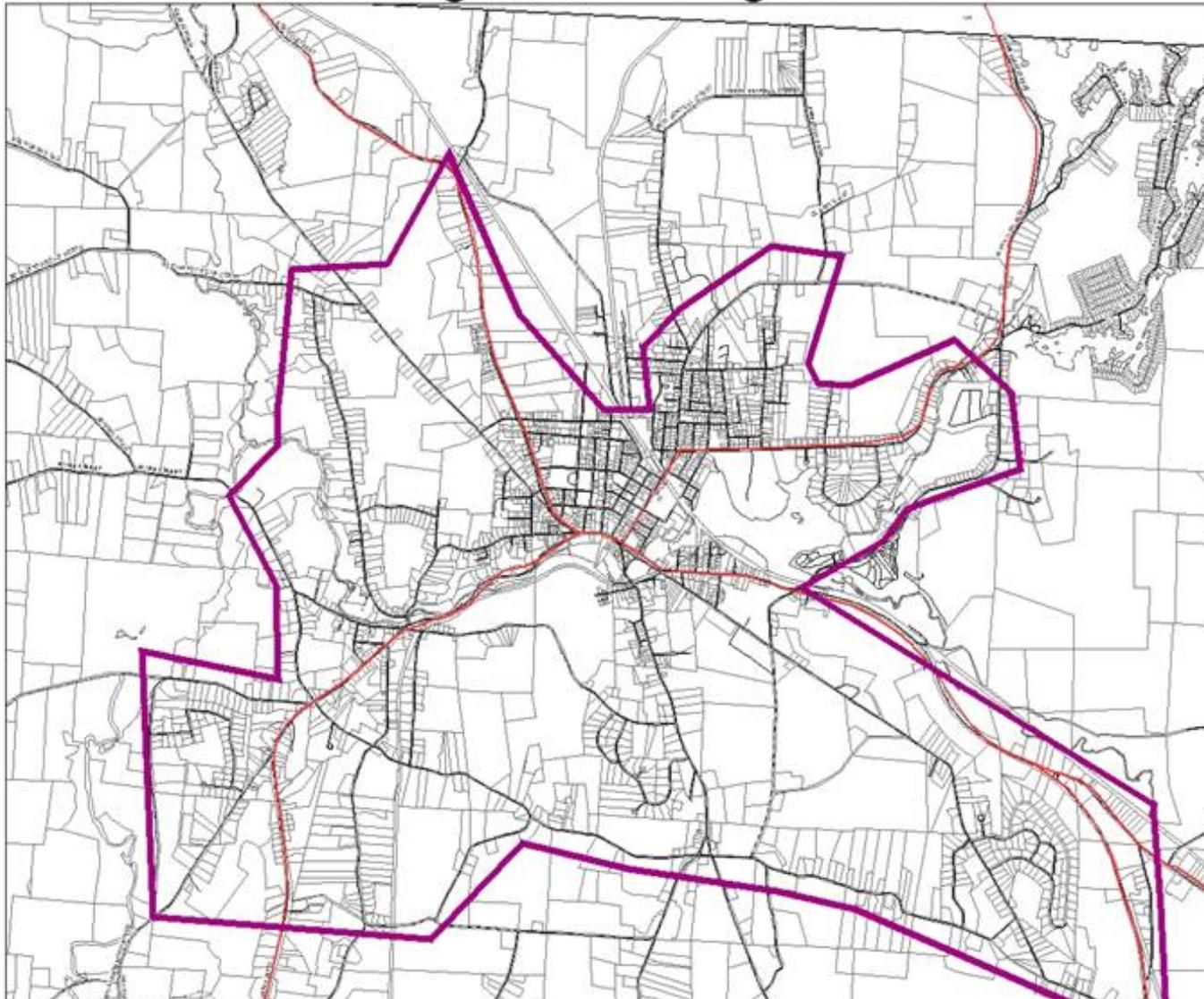
Promote mixed use of older, larger houses and commercial structures in the downtown. Mixed use means residential use on the upper floors of the structure and institutional, government/public service, or commercial uses on the ground floor.

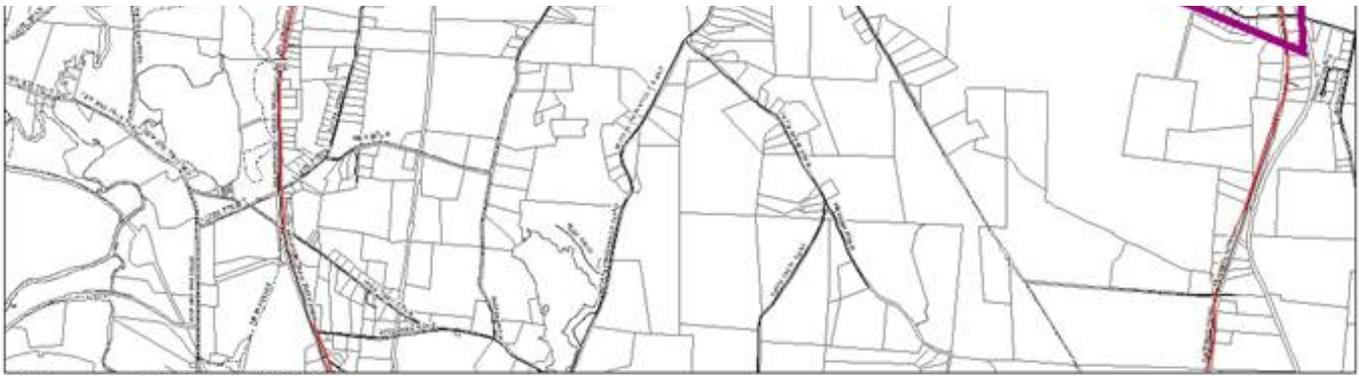
Promote mixed use of existing, unoccupied industrial structures.

Promote upgrading of existing, older apartment buildings to provide for upper end rentals.

Require strict enforcement of the Massachusetts Building Code. Provide sufficient staff to ensure ample, timely inspections of new construction.

Housing Rehab Target Area





Effective Date 1/29/07

Zoning information is valid for areas within the Town of Winchendon only.

DATA SOURCES: MassGIS, MHD, the Town of Winchendon and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
 Montachusett Regional Planning Commission
 GIS Department, May 2006
 Rt1427 Water Street
 Fitchburg, MA 01420
 Phone: 978-345-7376
 E-mail: mrpc@mrpc.org



- Legend**
- Roads and Streets**
- Maintained, Paved
 - - - Maintained, Gravel
 - Not Town Maintained
 - Highways
 - Parcels
 - ▭ Winchendon Boundary
 - State Boundary



The Town’s Zoning Bylaws contain a building cap, which limits construction of new homes to fifty per year. The purpose of the bylaw is to help prevent sharp deviations in the number of new families moving into the Town in a single year, thus preventing unanticipated loads on the Town’s services [expires 12/07].

Services

This element identifies and analyzes existing and forecasted needs for facilities and services used by the public.

Police Protection

Winchendon is served by a fulltime, 24-hour police department consisting of 15 fulltime police officers and 5 part time officers. The department is housed to the rear of Town Hall on Pleasant Street in facilities that are cramped and outdated. The department has 5 marked cruisers on the road, one back-up vehicle, a chief’s car, (which seconds as a cruiser) and one unmarked car.

Police statistics show that the total number of offenses committed each year have increased for the past three years. (Table 2) Offenses requiring investigations have also increased. (Table 3) At present, the department has one part-time detective who investigates the more

serious crimes. Approximately 60% of the investigations are solved within 2 months. The remainder remain unsolved much longer. As Patrol Officers are required to respond to increasing numbers of calls, their time available to conduct follow-up investigations of unwitnessed crimes decreases. As a result, investigations are not completed or remain open for long periods of time. Criminal investigations that remain unsolved for long periods of time may actually increase the crime rate, which in turn adds to the burden of the police department.

Table 2 Police Statistics

	<u>1997</u>	<u>1998</u>	<u>1999</u>
Total Offenses	1116	1690	1817
Total Crime Related			
Incidents	360	619	619
Total Non-Crime Related			
Incidents	0	30	127
Total Protective Custodies	54	54	54
Total Arrests	444	612	623
Total Juvenile Arrests	57	68	80

Table 3 Investigative Offenses

	<u>1997</u>	<u>1998</u>	<u>1999</u>
Forcible Rape	2	11	10
Sexual Assault	3	1	1
Aggravated Assault	0	92	142
Arson	2	5	5
Burglary	0	67	73
Counterfeiting	7	15	21
Credit Card/ATM	0	1	1
Stolen Property	10	5	18
Statutory Rape	0	3	2
Bad Checks	0	8	4
Total	24	208	277

The department has two officers dedicated to an active Community Policing Program. The program uses an integrated, indirect approach to solving law enforcement problems, working with citizens at large and various municipal departments and boards. One officer works within the school system, the other works as a bike patrol in the downtown areas in the evenings.

Winchendon has a 'zero tolerance' policy regarding drugs. All local drug offenses are prosecuted. The department also works with the North Worcester County Drug Task Force to focus on large drug dealing operations.

The department needs additional support staff so as to free up officers for patrol and investigative duties. The facilities need to be increased and upgraded to provide for a much-needed juvenile holding area, and interviewing, office and storage space. There is need for two additional marked cruisers and an unmarked vehicle.

The current chief is working to attain accreditation for the department so as to gain greater access to grant funds for much needed improvements.

Police Goal

Provide reliable, efficient police protection.

OBJECTIVES

Develop a capital improvement program to address expansion needs on a regular time schedule.

Achieve accreditation.

Strive to reduce the amount of time that crimes remain unsolved.

Fire Protection

The Winchendon Fire Department is located at 405 Central Street near the downtown business district and in one of the most densely populated areas of the Town. The Winchendon Fire Department is a “paid on-call department”, with 3 full time fire fighters, a chief, and 35 part time employees. Services are available to the Town 24 hours a day, 7 days a week. The Town belongs to two mutual aid associations: Mid-State (Massachusetts) which is centered in Fitchburg, and the Southwestern New Hampshire District Fire Mutual Aid, which is centered in Keene. Membership in these two associations provides the Town access to fire fighting assistance in more than 60 communities.



Fire fighting equipment housed at the fire station is shown in Table 4.

Table 4 Fire Fighting Equipment

Description	Year	Pump	Water*	Condition	Life Expectancy	
					Truck	Attached Equipment
Engine 3	1996	1500 gpm	500 gal	Excellent	2025	
Engine 4	1991	1000 gpm	1000 gal	Excellent	2016	
Ladder 1	1984	1000 gpm	500 gal	85' Excellent	2010	
Forestry 5	1985	300 gpm	300 gal	DEM Excellent	2008	2030
Forestry 8	1953	250 gpm	250 gpm	DEM Poor	2001	2033
Forestry 6	1969	300 gpm	1200 gal	DEM Excellent	2012	2035
Truck 7	1983			DEM Satisfactory	2014	2014
Engine 1	1981	1000 gpm	1000 gpm	Poor	2000 **	

Description	Year	Condition	Life Expectancy	
			Truck	
Car 1	2000	(4WD) Excellent		
Car 2	1996	Satisfactory		
Ambulance 1	1997	Excellent	2015	
Ambulance 2	2000	Excellent	2017	
Water Trailer	1996	(400 gallons) Excellent	2015	

* Volume of water the vehicle can carry to a fire. The total of this column has a direct impact on the Town's insurance rating.

** Engine 1 is being rehabilitated as of November, 2000, and will be returned to service in excellent condition before the end of 2000.

Currently there is no capital improvement plan with which to guide replacement of fire fighting equipment. Replacement decisions are made on the recommendation of the Fire Chief. Funds for replacements have come primarily from outside donations, although the Town has contributed when the need arises.

Water for fighting fires comes from either the Town's water and hydrant system, natural water sources near the scene, or from water brought to the scene by the fire department. The Town's water and hydrant system functions fairly well, although the age of the system is its primary shortcoming. Several of the hydrants are out of service because they are broken or not functioning properly. The effect of these shortcomings is added time in getting water to a fire. For areas outside of the Town's water district, water must be transported or obtained from a source near the scene, mainly from a pond or a stream. Limitations arise when access to the water is impractical or impossible, either because it is too far downslope for the truck to pump it up or the surface of the water is frozen. A system of dry hydrants installed at key locations would help eliminate these difficulties. The Town currently has dry hydrants located at Whitney Pond, behind the bowling alley, at the base of High Street, and at Lake Monomonac. Not all of them are functioning at present, however. Additional alternatives for increasing the Town's fire fighting capabilities outside of the water district include a larger tank truck, the installation of

fire ponds or underground storage tanks at locations not served by accessible surface water or dry hydrants, and residential sprinklers. The Planning Board requires recommendations from the Fire Chief on all site plans and subdivisions.

At present the Town's insurance rating (ISO) is 5/9 (downtown/rural). The rating scale is 1=excellent, 10=poor. The last ISO survey for Winchendon was done in 1992. The rating is a function of several factors, including equipment available, the volume of water deliverable to a fire in a rural district, the rate at which water can be pumped, the manner in which calls are received and transmitted, and so on. The alternative strategies discussed above, if implemented, would have a direct, positive impact on the ISO rating. Improving the rating will reduce the cost of the Town's insurance coverage.

Table 5 Department Statistics

	1997*	1998	1999**
Fires	94	130	76
EMS	755	787	342
False Alarms	13	47	21
Good Intent/Scares	4	1	1
Other Emergencies	54	89	44
Non-Emergencies 297	238	139	

*Reporting software different from 1998 and 1999

** Represents 6-mos only due to change to fiscal year reporting

An evaluation of the Town's fire fighting protection services was performed using the distribution standards shown in Table 6.

Table 6 Recommended distribution standards for fire protection

Suggested Service Radius

Type of Land Use	Engine or	
	Pumper Company	Ladder Company
1. Commercial/Industrial	.75-1.0 mile	1.0 mile
2. High to medium density residential	2.0 miles	2.0 miles
3. Scattered residential	3-4 miles	3.0 miles
4. Rural low density residential	4-6 miles	-----

Most residential development in the Town is within the recommended service radii with the possible exception of the dense development at Lake Monomonac. Commercial and industrial development may also pose difficulties. Under current zoning, there could be commercial and industrial development outside of the .75-1.0 mile radius. These areas would include the industrial park on Jackson Avenue extension, the industrial zone along the town's eastern boundary, highway commercial development along route 140, and neighborhood business development along School Street, River Street and Route 202.

In addition to fighting fires, the Fire Department also enforces fire safety codes; provides fire safety education, rescue and emergency medical services, and hazardous material controls; determines the cause of fires; investigates arson; and supports arson prosecution. To accomplish these varied tasks the Fire Department works regularly with the building department, the Planning Board, Community Development, DPW, the police department, the public school system, private sector companies, and regional, state, and national organizations.

The fire department is equipped and trained to respond to spills of hazardous materials. When responding to a spill, the department's focus is on isolating the material, protecting the surroundings, evacuating lives, and containing the spill. Clean up and post-spill mitigation at this time requires outside assistance through the State Fire Marshall's Office.

Ambulance Service

The Winchendon ambulance service is run by the Fire Chief under the direction of the Town Manager. The Town currently has two ambulances, a 2000 and a 1996. Both vehicles are identically equipped according to State requirements. Winchendon currently offers Basic Life Support (BLS) service. The Town has applied for a license to provide Intermediate Life Support, a step that requires the Town to commit to proceeding to Advanced Life Support (ALS) services within three years. Once ALS services are available, the Town will have a paramedic on duty 24 hours a day, 7 days a week. In the interim, the Town utilizes paramedic services from Gardner when needed.

Ambulances are replaced every 5-6 years. Funding for replacement often comes from outside sources, although Town Meeting has approved funding in the past.

Emergency Dispatch

The Commonwealth of Massachusetts has the most advanced 911 services in the country. It requires all cities and towns to have enhanced 911 services available through a Public Safety Answering Point. Enhanced 911 services provide the dispatcher with the name, address, and apartment number of the telephone from which the call is placed. The Winchendon Emergency Dispatch Center complies with these requirements and functions as a regional dispatch center because it dispatches for the Town of Royalston as well. Winchendon's elderly residents may also register disabilities with the dispatch center to further enhance emergency services.

There are 5 fulltime and 4 part-time employees at the dispatch center. All employees are CPR trained, are first responders, and are trained for suicide watch. Dispatchers also monitor the prisoners at the police station and are qualified to provide criminal history records checks and motor vehicle checks. Because of the dispatchers broad-based training, their presence at the police station eliminates the need for a police officer to 'mind' the station. Emergency dispatch is available 24 hours a day, 7 days a week.

The Director of the Emergency Dispatch Center conducts extensive public outreach programs to keep the Townspeople informed about

911 services. Each year, children at the Memorial School are taught when and why to use 911. The Winchendon Golden Agers are offered a “911 and the Elderly” annually. Additional programs are offered at various times at the Clark Memorial Recreation Center.

Enhanced 911 services became available in Winchendon in September of 1996. Statistics of emergency calls received were not reported until 1998 and are shown in Table 7.

The need for emergency dispatch services has increased each year, a trend likely to continue as the Town’s population, particularly elderly residents, increases. Technological advances in 911 services, including the ability to specify the exact location of cellular and pay telephone calls, and calls originating from room telephones within a large building, may further increase the demand for services. Increases in service demands will certainly require adequate funding to provide timely upgrades in equipment and additional personnel needs. While the Commonwealth pays for all 911-associated equipment, the Town is responsible for department computers, radios, toning equipment, and personnel.

Table 7 Emergency Dispatch Statistics

	<i>1998</i>	<i>1999</i>	<i>2000 (up to 8/21)</i>
Computer Aided Dispatch Calls	10,122	11,500	6,980

Emergency Dispatch Goal

Provide the best quality emergency services possible.

Education

There are presently four public schools and one private school in Winchendon.

Marvin School

Located at 89 Ash Street, the Marvin School is presently home to the public pre-school and pre-kindergarten programs. Current enrollment is 90 students. There are four classrooms, each with a capacity of 25 students, and three spaces for therapy. There are playground equipment and a ball field on the premises. The building is in excellent repair, although it will need a new heating system and a new roof at some point in the future. Useful life of the building is fifty or more years.

Memorial School

Located at 32 Elmwood Road, the Memorial School houses grades kindergarten to grade 3. Current enrollment is 561 students; maximum capacity is 800. This building has recently had a new roof, heating system, carpets, and exit doors. There are plans to replace the windows due to leaking seals. Funds for these repairs and other improvements will come from the existing operating budget, owing to savings resulting from the new heating system. Useful life expectancy of the building is forty to fifty years.

Toy Town

The Toy Town elementary school is located at 175 Grove Street and houses grades 4, 5, and 6. Current enrollment is 485 students; maximum capacity is 500. Administrative offices for the school department are also located in this building. The building has a new roof, floor tiles, windows, and plumbing. The heating plant is aging, although functioning well. Replacement will be needed at some point in the future. Useful life expectancy of the building is forty to fifty years.

Murdock Middle/High School



The Murdock Middle/High School is located at 3 Memorial Drive and houses grades 7-12. It is the newest of the school buildings. As such it needs only routine, regular maintenance. Present enrollment is 813; maximum capacity is 1,000. Useful life expectancy of the building is fifty or more years.

Class sizes have remained fairly constant for the past several years, averaging between 130 and 150 students. The New England School Development Council (NESDEC) does not project any increase in enrollment in the next 5-10 years, however we have been increasing enrollments beyond their predictions for the last three years. Per pupil expenditures will continue to increase as the cost of living increases and educational demands are imposed by legislation and the Department of Education. Total Per Pupil Expenditures through 1997 are shown in Table 8.

Table 8 Total Per Pupil Expenditures

	<u>DISTRICT</u>		<u>STATE</u>	
	<i>1993-4</i>	<i>1997-8</i>	<i>1993-4</i>	<i>1997-8</i>
All day Programs	\$3,675	\$5,084	\$5,235	\$6,361
Regular Education	2,969	4,229	4,369	5,221

Special Education	5,617	7,674	7,666	9,873
Bilingual Education	0	0	5,539	7,106
Vocational Education	0	0	7,843	9,052

Expansion of facilities due to increased enrollment should not be necessary in the next five years. However, there has been much discussion regarding establishment of a full-day kindergarten program. If this is established, then there will be a need for additional classroom, recreation, and support space. Ten classrooms, a multi-purpose room, and several small support rooms could be added to the Marvin School to accommodate this need.

The Town also owns two other former school buildings, the Poland and Streeter schools, on Park Street. The ground floor of the Streeter School is being leased to the veteran's services; the Poland is empty, but secured. Discussions have been held regarding relocation of the school department's administrative offices to the Streeter School and moving the veterans to the Poland School. Both buildings will require renovations prior to occupancy by any future tenant.

Strengths of the overall teaching program include:

- an excellent teaching staff,
- an updated and "user friendly" curriculum,
- a professional development program for continual professional growth, a teacher evaluation program to recognize areas of strength and address areas that need improvement, and
- teacher induction and mentor program.

The school curriculum is now linked and aligned with the State Frameworks. The schools' standards now exceed the state requirements in all subject areas. An extensive professional development program has resulted in a teaching staff now better able to teach reading/writing/thinking skills across the curriculum.

The school department's special education program is also considered a strength of the school system. The program has an excellent staff that works to recognize individual special needs and ways in which to remediate them.

Weaknesses of the teaching program include:

- getting more staff linked to the technology of their discipline/grade level,
- insufficient diversity in the curricula offerings,
- insufficient diversity in the teaching staff, and
- lack of awareness by some of the teaching staff of the strengths of the program and the students.

The Department of Education does not require specific student-teacher-administrator ratios, although they do recommend parameters for optimum ratios. The school department tries to limit primary grade class sizes to under 25 and closer to 20. In the intermediate grades

and middle school class sizes average 25-27. High school class sizes vary. Depending on the subject, they can range from as low as 15 to as high as 35 or 40. The school department is in line with recommendations for the number of administrators and support staff.

The school department has established a working relationship with several of the local institutions of higher education including Mount Wachusett Community College, Keene State College, and Fitchburg State College. The school department is also an active member of the Fitchburg State Professional Development Center and advisory councils at Fitchburg State College and Mount Wachusett Community College.

Every student from grade 1 through grade 8 is exposed to computers. Training ranges from learning the keyboard to more advanced training such as Microsoft Word, Excel, and Access. Internet access is being introduced to students in library/media center, computer lab, and from individual classrooms. The school system is working toward preparing students for employment in a technological work force. Telecommunications facilities, including high speed internet access, are becoming available in the Town with the passage of the 'wireless communications facilities' zoning bylaw.

Planning efforts are directed toward ensuring that the Town is able to provide adequate, safe, and appropriate space for the education of its present school age population and for the needs of its projected population. Planning must also address the quality of the educational services provided to its students, with an understanding of the future destinations of its graduates. The school department acknowledges its role in the preparation of students to be contributors toward future employment opportunities within the Town. Employers often look at the educational achievements of a town's high school graduates in consideration of their location. Labor force requirements have changed from agricultural, to industrial, to service and technological jobs. Our graduates need the skills to succeed in this high-tech, college-dependent economic environment.

Library Facilities

Public library services are available at the Beals Memorial Library on Pleasant Street. The library currently houses 35,000 total volumes (2,500 reference volumes, 10,000 children's volumes; 22,500 adult volumes); five (5) public access computers; computer software; videos; records; and magazines. Access to additional volumes is available through the Interlibrary Loan Service that the library provides. Circulation statistics for FY99 are shown in Table 9.

Table 9 Library Statistics

Circulation FY99

Registered Borrowers	2,590		
Books-on-tape	1,041	Videos	4,992
CD-ROMs	103		
CDs	182		
Films, Records	10		
Braille	72	Children's Programs	66
Adult Total	15,620		

On the second floor of the building there is an auditorium that is equipped with a small stage, a public address system, a grand piano, and a small conference room.

The library offers several children's programs, free Internet access, home deliveries for the housebound, and assistance with reference and genealogy questions. The library also offers passes to various museums in the Commonwealth.



The Town built the library in 1913 with a donation of \$25,000 and a lot from Charles L. Beals. It is on the National Historic Register. Since that time, it has had little more than routine maintenance. The building needs new wiring; new heating, air conditioning and ventilation systems; exterior drainage to alleviate basement leakage; new windows; insulation; sprinkler system; and asbestos and lead paint removal. The building is not handicapped accessible, which is in violation of the American Disabilities Act (ADA). Lack of suitable space has precluded further expansion of existing collections and services. The second floor facilities are underutilized due to restricted access.

Library Goals**Health Care Facilities**

“Access to adequate health care is essential for the survival and growth of a small town. A lack of health care facilities and personnel will discourage new businesses from moving to the community and may force some existing businesses to leave.” (*The Small Town Planning Handbook; Daniels, Keller & Lapping; 1995*)



Winchendon's primary source of health care is the Winchendon Health Center, which is located at the site of the former Winchendon Hospital. The Center opened in 1982 as a satellite facility to the Henry Heywood Hospital in Gardner offering health care



and outpatient services to Winchendon and surrounding communities. Currently there are five Board Certified Family Practice Physicians practicing at the Center. The Center also employs three registered nurses, two licensed practical nurses and two per diem

registered nurses. Primary care services are offered to patients of all ages. Services include prenatal/obstetrical care, minor surgery, patient education, health promotion, and preventative services. Equipment available at the Center include cardiac monitor, cardiac defibrillator, cardiac pacemaker, EKG, cryotherapy, tympanograph, sigmoidoscope, pulse oximetry and oxygen therapy.

The closest emergency medical services are at the Heywood Hospital in Gardner. There are also hospitals located in Athol, Worcester, Fitchburg, and Leominster.

At present, the Center is able to meet the service demands of the area. Ongoing feasibility studies are routinely conducted to evaluate the need for possible future expansion.

At present there are two dental practices in Winchendon. Services offered are comprehensive, although some procedures require referral to practices outside of Winchendon. Winchendon also has one optometrist and one chiropractor.

[Health Care Facilities Goals](#)

Solid Waste Disposal

The Town has a drop-off transfer station on River Street. At the station are recycling containers for glass; steel and tin cans; aluminum cans and foil; plastics #1 and #2; newspaper; mixed paper; corrugated cardboard; scrap steel; non-ferrous scrap metals; tires; compost; CRT's; waste oil; universal wastes (i.e. fluorescent bulbs and mercury-bearing units ballasts); batteries; and paint collection on Saturdays. There are also areas for construction and demolition (C&D) and bulky wastes. The Town transports materials taken in for recycling to a materials recovery facility in Keene, NH. Hauling costs the Town \$120/ton. Composting of leaves, grass, and small brush is done at the site and is made available to the public at no charge. The Town's recycling rate is currently 39%. (The average statewide recycling rate is approximately 35%.) Facilities are open to Winchendon residents only, although non-residents may seek permission from the Winchendon Board of Health. Hazardous household wastes are collected at an annual, one-day event organized by the Board of Health. The Board would like to build a permanent station at the transfer station to allow four to six collections per year.

Three DPW employees and a solid waste manager run the transfer station.

The transfer station is provided as an alternative to the previous 13-acre landfill that was closed and capped in 1999. There are another 50+ acres at the site that have been site assigned by DEP. The Town is still finalizing the application for landfill expansion. There is no guarantee that the application will be approved. However, the Town is much in favor of pursuing a new landfill as a means of reducing solid waste disposal costs and as a source of much needed revenue for the Town.

Solid Waste Disposal Goal

Municipal Water Supplies [cf. Environmental Module]

Winchendon's public water supplies come from Upper Lake Naukeag in Ashburnham. The water is pumped from the Lake at the main pumping station there at approximately 1,000 gpm. (There is a second pump at the the station that allows for relief/repair of the primary pump, or to provide additional pumping capacity when demand is high.) It is chlorinated and then passes into a 12-inch diameter main, through which it travels along Lake Road to Sherbert Road, across country through the woods until it comes out on North Ashburnham Road. It continues on through the Town Forest to the site of the former Prentiss Meadows pumping station. There the line splits and goes in two directions – one goes on through the Town cemetery and out onto Glenallen Street, proceeding north to Elmwood Road and ending at the storage tank on Murdock Hill. The second line crosses the Millers River to Spring Street and continues on toward Town. The line turns at Water Street and proceeds up High Street to the second storage tank at Old Centre. The combined storage capacity of the tanks at Old Centre is 1,566,000 gallons. Storage capacity at Murdock Hill is 1 million gallons.

Winchendon and Ashburnham are currently jointly constructing a State-mandated filtration plant at the Lake. Once the plant comes online, water will be filtered before being chlorinated and sent on into the distribution system. The estimated date of completion for this project is February, 2001.

Distribution System

Water is distributed by gravity through lines that range in size from 16 inches to ¾-inch at the outermost reaches of the system. As water is drawn down through the system, the pumps at the Lake come on and refill the storage tanks as needed.

Current Levels of Use [update with OSRP]

The safe yield determined for Upper Lake Naukeag is 1.7 million gallons per day (365 days per year). At present, Winchendon draws an average of 710,000 gallons per day. Ashburnham draws an average of 250,000 gallons per day. Approximately 700 Ashburnham residents draw from Winchendon's water mains before the mains cross into Winchendon. On peak demand days, e.g. the hotter days of summer, demand rises to over 1 million gallons per day, close to the safe yield level. On these peak demand days, the Lake is stressed. The water system serves approximately 2000 customers (homes and businesses) or about 5,600 residents.

Location of Water Lines – see [map](#)

Age and Condition of the System

The pump station at the Lake was built in 1950. It continues to function well. The distribution pipes, however, are approximately 80 to 100 years old. There are places in the line where tuberculation has reduced the interior diameter of the pipes from 14 inches to 8 inches. This reduces the amount of water that can flow through the pipes and in turn causes the pumps to work harder. The quality of the water suffers as well due to the accumulated material inside the pipes, often resulting in discolored water being delivered to customers.

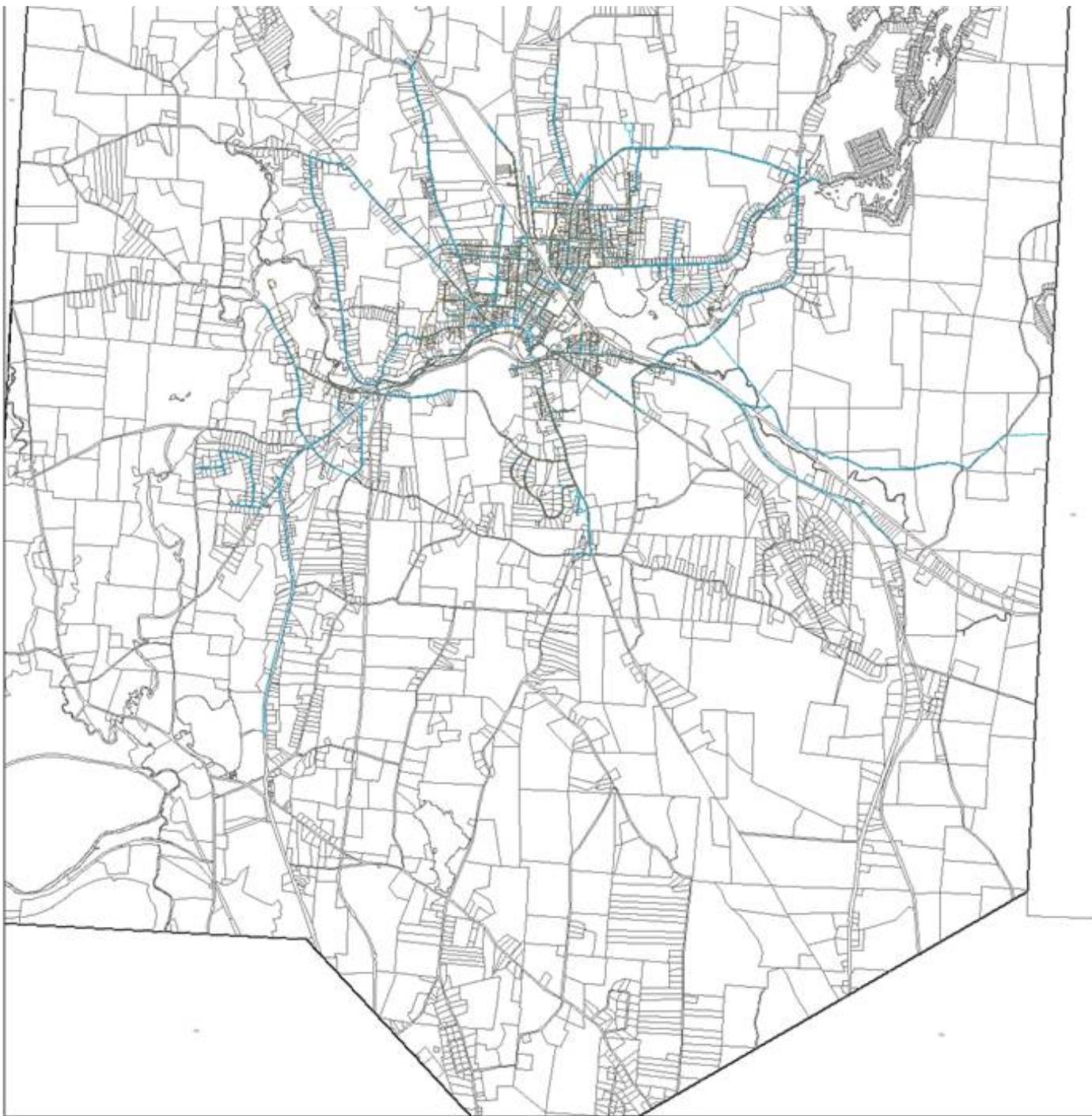
Ability of the present system to support future development

The present system cannot be extended easily because of the size of the pipes at the extremities of the system. Given its present expense, it is unlikely that extension would happen in the near future. However, water demand in Winchendon is expected to rise to 730,000 gallons per day by 2010; Ashburnham's demand may rise to 320,000 gallons per day. (*Greater Gardner Sustainable Growth Management Plan, 1999*) Since present peak demands are already close to the maximum safe yield for the Lake, the Town will need to pursue development of alternative sources for public water. Two sites have already been identified – one at Whites Mill Pond and the other at Mill Glen Pond. Neither site will yield sufficient water to replace our existing water supplies. However, each may provide water to a smaller, localized area as a supplement to the main system.

Municipal Water Supplies Goal

Winchendon Water and Sewer Map





Effective Date 1/29/07

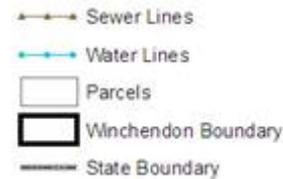
Zoning information is valid for areas

Legend

within the Town of Winchendon only.

DATA SOURCES: MassGIS, MHD, the Town of Winchendon and the MRPC. **DISCLAIMER:** The information depicted on this map is for planning purposes only. All data are representational and are not adequate for boundary definition, regulatory interpretation, or parcel-based analysis.

PREPARED BY:
 Montachusett Regional Planning Commission
 GIS Department, May 2006
 R1427 Water Street
 Fitchburg, MA 01420
 Phone: 978-345-7376
 E-mail: mrpc@mrpc.org

Municipal Wastewater Treatment

Winchendon's wastewater treatment facility was built in 1974. It was designed to treat an average flow of 0.5 million gallons per day (GPD). However, it has been operating overcapacity at 680 million gdp since the day the plant went online. An extended aeration form of an activated sludge process provides sewage treatment. Treated effluent is filtered, chlorinated, dechlorinated, and discharged into the Millers River. Residual sludge is dried and landfilled.



Age and Condition of the system

The treatment plant is 26 years old and has not been upgraded since the day it went online. The pumps, aerators, grinders, blowers, etc. are now beyond their useful life and are wearing out. Maintenance alone will not keep them functioning properly and their replacement parts are very expensive. The treatment technology is now outdated as well. The facility needs new settling basins, a diffused air system, and a sludge facility, among other things.

The collection system is also old. In places the line is cracked and there are many unsealed pipes. Groundwater infiltrates the system and adds to the excess volume flowing into the treatment plant.

There are 34 combined storm/sewer manholes. During storm events, when large volumes of water suddenly surge into the system, these combined storm/sewer manholes may be unable to maintain separation. The storm water ends up in the sewer line and ultimately at the treatment plant, where it either adds to the excess volume or it may actually overwhelm the system causing raw sewage to be discharged

into the Millers River. In addition, treatment systems are damaged due to the sudden and complete loss of bacteria and must be replaced before treatment can be resumed.

Another difficulty is the presence of “Combined Sewer Overflows” or CSOs. These are pipe constrictions, known as venturis, placed in the collection system that are designed to prevent the storm water surges described above. When a surge event is encountered, excess inflow is diverted to a secondary discharge outlet. Unfortunately, the older CSOs, such as those in Winchendon, discharge the flow directly into the Millers River, untreated. More modern CSOs prevent this by collecting, holding, and releasing the surge when the flows have subsided or by diverting the surge to some form of secondary treatment before discharging it. There are two of the older type CSOs still functioning in Winchendon.

Ability of present system to support future development

Because the plant is undersized for present flow rates, there is no capacity available for future development at the present time. The future of the plant itself is also under debate due to recent actions by the Environmental Protection Agency (EPA). These include changing the expiration date on the Town’s National Pollutant Discharge Elimination System (NPDES) permit and changing the standards for allowable discharges into the Millers River.

The NPDES permit regulates discharges from the treatment plant. Winchendon’s NPDES permit requires removal of 80% of the Total Suspended Solids (TSS) and 80% of the Biochemical Oxygen Demand (BOD) from the discharge. However, the EPA has adopted more stringent standards regarding discharges from treatment plants, which will have to be taken into account when negotiating a new NPDES permit.

The EPA has also made all NPDES permits within a single watershed expire in the same year in an effort to improve regulatory efficiency. In so doing, Winchendon’s permit will expire two years earlier than originally stated.

Therefore the Town is in need of negotiating a new NPDES permit for a treatment plant that will treat the actual volume of septage to a higher discharge standard and will eliminate the remaining CSOs. EPA mandated improvements to the treatment plant could cost the Town \$12 - \$15 million. This could put the Town into receivership if forced to borrow this amount of money at the Town’s present debt load.

Alternative strategies are being explored. One is to reduce the flow to the design level of 0.5 million gpd by removing the excess water in the system. (Repairing pipes and seals and removing fugitive water from roof drains, sump pumps, etc. is already taking place and will continue indefinitely.) A second alternative may be to connect to Templeton’s treatment plant, which is running far below capacity. Feasibility studies for this alternative are already underway.

Municipal Wastewater Treatment Goals

[Parks and Recreation](#) [see [Environmental Module-Parks and Recreation](#)]

Dams

The Town owns the Lake Monomonac or Main Dam, the Red Dam, and the Whitney Pond Dam. The dams at Lake Monomonac were used in the past to impound water for use by industries downstream. The Whitney Pond Dam was constructed for power generation. Today, these dams serve as mainly recreational facilities and for flood control purposes.

Pursuant to M.G.L. Chapter 253, section 46, all dams are visually inspected by the Commissioner of the Massachusetts Department of Environmental Management Office of Dam Safety on a schedule established by state regulations. Dams classified as High Hazard are inspected every two years. Results of field inspections are reported to the Town in an inspection/evaluation report. These reports inform the Town of the condition of the dam and make recommendations for necessary repairs or alterations. As dam failure can result in substantial property damage and loss of life, it is vitally important that the Town pay close attention to these recommendations.

“It is important to note that the condition of a dam depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the present condition of the dam will continue to represent the condition of the dam at some point in the future. Only through continued care and periodic inspections can there be any chance that unsafe conditions be detected.” DEM, Office of Dam Safety

Lake Monomonac Dam

The Lake Monomonac or Main Dam is an earth embankment type dam that is 333 feet long, 13 feet high and 28± feet wide at the crest. The dam was built around 1923. There is an emergency spillway located approximately 3,000 feet to the west of the dam near Route 202. The spillway was constructed simultaneously with the dam and acts as an overflow mechanism when the water level in the lake rises above elevation 1047.7 feet, mainly during spring runoff. The dam has no instrumentation. On December 2, 1975, the dam experienced a partial embankment failure. To stabilize the failing dam, a sand-gravel cofferdam was constructed on the upstream side. The outlet was closed and was replaced by a 30-inch diameter cast iron siphon pipe with a control valve. These measures were intended to be temporary so as to allow the Town time to accumulate financial resources sufficient for the permanent repair of the dam. According to Department of Environmental Management (DEM) standards, the Main Dam is classified as large size and High Hazard.

Improvements to the emergency spillway were made in the mid-80's with money received from the state. The culverts under Monomonac Road West were moved and replaced with the larger culverts that are still there today. The larger, centrally located culverts have eliminated the annual washout of the road.

Red Dam

The Red Dam or Lower Pool is located about 200 yards south of the Lake Monomonac Dam. It is believed that the Red Dam was the first dam built at Lake Monomonac, but became secondary when the Main Dam was built. The Red Dam creates Mirror Pond, a pool that has been providing backpressure to the Lake Monomonac Dam.

When Weston & Sampson inspected the dam on March 4, 1996, they described a 310-ft. long earthfill embankment dam, 15 feet high, and 10 feet wide at the crest. They found the embankments heavily vegetated on both faces and there was substantial erosion of the dam crest. The masonry face of the training walls deteriorating and there was water seeping through the side training walls, indicative of a seepage problem. Because no records

were available describing the construction or maintenance of the dam, W & S were unable to determine the stability of the dam. They further stated that based on information derived from an earlier investigation of the dam, the dam “will not sustain the flow of the required design storm and will most probably fail due to overtopping under such a storm.” (*Proposal, Red Dam Improvements, May 31, 1996*) Weston and Sampson judged the dam to be unstable in the condition in which they observed it. According to DEM standards, the dam is intermediate in size and has a High Hazard classification.

Since the time of the Main Dam failure in December 1975, the Town has grappled with the lack of funding to make the necessary repairs. Estimates to repair the Main Dam, the Red Dam, and the emergency spillway ranged up to \$1,116,000. (*SEA Proposal, Dec. 1979*) To save the Town a substantial amount of money, the engineering firm of Weston and Sampson proposed repairing the Red Dam to where it would serve as the primary impoundment structure for Lake Monomonac. The Lake Monomonac Dam would serve as the water control structure during reconstruction of the Red Dam (water control structures typically account for a substantial portion of the construction costs), and would then be converted to a causeway after the Red Dam is completed. This plan would also eliminate the need to drawdown the water in the lake, which would be necessary during any reconstruction work on the main dam. Improvements to the Red Dam were to include construction of a new cross-section of the dam and a new spillway. Since the Red Dam and the Main Dam serve the same watershed and are only 200 yards apart, this plan was agreed to.

On September 21, 1998 Town Meeting approved borrowing \$424,000 to proceed with the proposed project as described by Weston and Sampson in 1996. As of this writing, the work on the Red Dam has been completed. The conversion of the main dam should be completed in the spring of 2001. Since the Red Dam is rated as a High Hazard Dam, Chapter 253 Rules and Regulations require an Emergency Action Plan (EAP) be prepared before the end of the construction. (*Jerzy Pietrzac, DEM Office of Dam Safety, Oct. 2000 telephone interview.*) Weston and Sampson is also including an Operation and Maintenance Program with the EAP.

Every year the Town lowers the level of the water in the Lake by two feet on or about October 15th. This allows for minor repairs of docks and retaining walls. The flashboards are replaced in the spring to bring the water level back up to 1047.26 feet, which is also the top of the spillway. The annual drawdown is regulated by an Order of Conditions from the Winchendon Conservation Commission. The Order is renewed every three years. The current Order is valid until June 2003.

Whitney Pond Dam

The Whitney Pond Dam is located directly east of the downtown at the junction of the North Branch and the Millers River. The dam impounds water from the Millers River and creates Whitney Pond. It is an “earth embankment and gravity cut stone spillway structure”.

(DEM Inspection Report, 1998), 25 feet high and 887 feet long. There is a 92-ft. long stone masonry spillway. There is approximately 13 feet for freeboard between the top of the ungated masonry spillway and the crest of the embankment. (1998 DEM Inspection Report) The crest of the left embankment varies in width and serves as the roadway for two converging lines of railroad tracks. There are two railroad bridges that span the spillway. According to DEM standards, this dam is a large size dam and is rated High Hazard. There is no Emergency Action Plan or Operation and Maintenance Program for this dam. There is no instrumentation at this dam.

The latest inspection report for this dam (August 17, 1998) states the dam is structurally stable, but has substantial potential for overtopping by over 6 feet in the ½ PMF storm event. (PMF refers to the Probable Maximum Flood, *the test flood for spillway adequacy. As this is an event of “Biblical proportions”, spillways design standards are based on the ½ PMF for practical reasons.*) The Report recommends the following remedial measures be “attended to at” our “earliest opportunity”.



1. Remove trees and brush on the upstream and downstream slopes of the embankment. Fill any stumpholes created thereby with compacted granular fill.
2. Replace missing stones and repair downstream end of right spillway masonry training wall.
3. Backfill the erosion gullies on the upstream and downstream slopes with crushed rock fill less than 6 inches in size.
4. Remove deteriorated footbridge at crest of spillway.
5. Replace missing stoplogs at spillway crest and secure the area from vandalism with fencing. (Note: this area has been secured with fencing and a locked gate. However, vandalism continues to be evident.)

The total estimated cost of these remedial measures was \$65,000 to \$86,000 in 1998 dollars.

UTILITIES

Power, Access to Resources (cradle to cradle), Information MGMT

