



# Devens Impact Evaluation & Recommendations

Town of Harvard, MA

Town of Harvard Master Plan - Devens Impact Evaluation

December 14, 2015



# **Devens Impact Evaluation & Recommendations**

prepared for

**Town of Harvard, MA  
Town of Harvard Master Plan - Devens Impact Evaluation**

**December 14, 2015**

prepared by

**Burns & McDonnell, Inc.**

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## 1.0 INTRODUCTION

Through its current Master Plan revision process, the Town of Harvard is revising its Master Plan. Due to the important role of Devens, both currently and in the future, Harvard's Master Plan Elements should discuss and consider the future of Devens and its effects on the portion of the town now known as "Residential Harvard". Such a consideration has partially been done in previous versions of the Master Plan.

Harvard will also be part of deciding Devens' future ("disposition") between now and 2033, and the town's Master Plan can try to anticipate, or assess, potentially significant impacts of resuming jurisdiction.

As part of a Devens Impact Evaluation for the Town of Harvard, Massachusetts' Master Plan Steering (MPSC) Committee, Burns & McDonnell has previously reviewed available documentation related to Devens, reviewed a draft of the Master Plan (Phase II) document and other associated references, and prepared an economic and fiscal findings report.

This report, a Devens Impact Evaluation & Recommendations, provides a summary of Master Plan issues related to Devens and provides next-step recommendations for each of seven Master Plan Elements. Issues and recommendations are compiled as a "Devens Matrix", and the previously-prepared reports are included as appendices.

This evaluation has found that Harvard's draft Master Plan contains numerous goals and recommendations that mention, do involve, or could involve Devens. Notably, several of the stated goals can likely be realized *regardless* of the final Devens disposition outcome. While resuming jurisdiction could assist with achieving some community goals and recommendations, they could also likely incur some risk and/or cost.

Devens will continue to present both challenges and opportunities to the Town of Harvard regardless of disposition. The redevelopment of Devens over the past 20 years has been a success, yet the path forward is somewhat uncertain. Proper assessment and continued actions on the part of the Town of Harvard, such as through its Master Plan process, can assist the town with setting appropriate goals and working towards them in an informed manner.

## 2.0 LAND USE

Land use issues identified in Harvard’s Master Plan and Devens-related documents involve a need for additional commercially and industrially-zoned land within the town, and the availability of more diverse housing opportunities.

Resuming jurisdiction of Devens would greatly, and immediately, increase the percentage of land available to commercial and industrial uses within the Town of Harvard (Figure 2.1). Notably, this would occur without directly affecting any zoning within Residential Harvard. Currently, Harvard is zoned 82% residential/agricultural, 2% commercial, 16 % watershed protection and floodplain, and 0% industrial. A combined Harvard and Devens (zoned per the 1994 Reuse Plan, Figure 2.2) would be zoned approximately 70.4% residential, 18.4 % open space (including Harvard's W district and Devens Open Space District), and 11.2% non-residential (including Harvard's B and C districts and everything in Devens not zoned open space or residential). Notably, these percentage shifts would occur without reducing any current residential zoning or adjusting the current C-District boundaries. This would create

a much more balanced residential-commercial-industrial zoning mix that would be more in-line with many other towns in the region and would better-allow for additional commercial and industrial growth. This is further discussed in Section 1.5 (Harvard’s Economy).

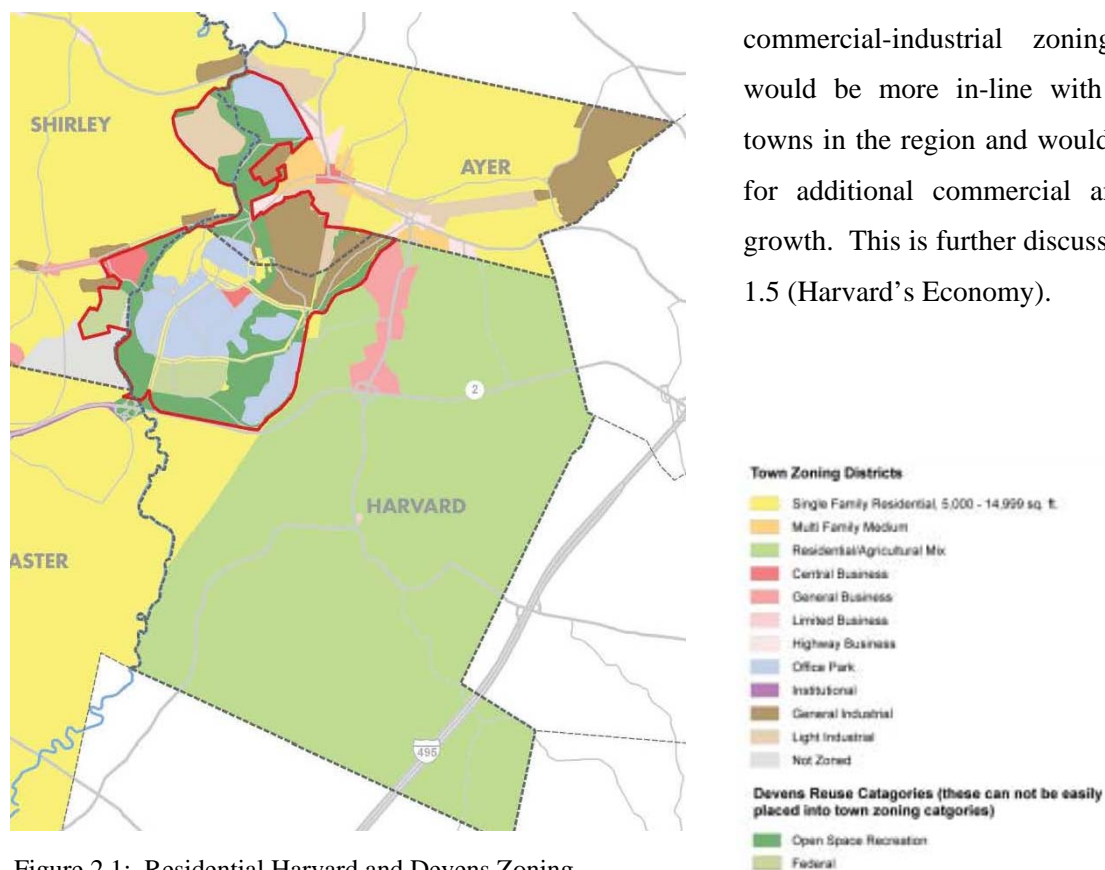


Figure 2.1: Residential Harvard and Devens Zoning

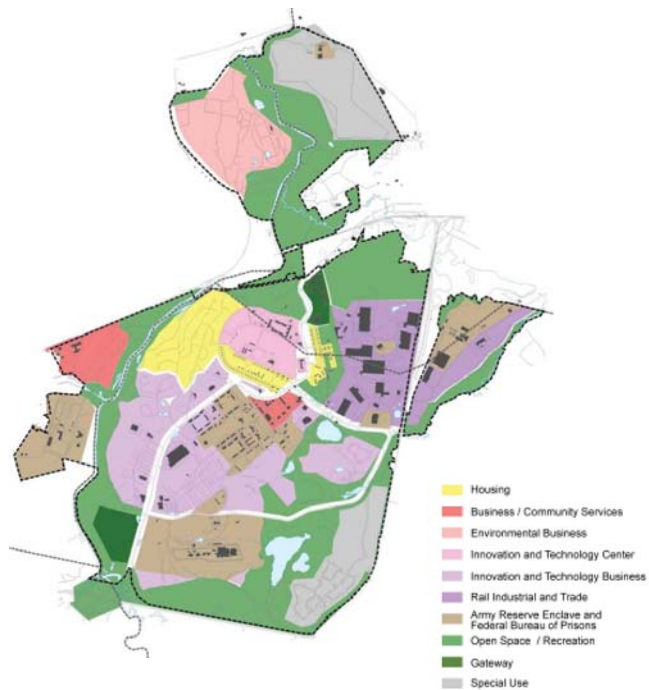


Figure 2.2: 1994 Devens Reuse Plan

If availability for additional commercial/industrial development is deemed necessary for economic growth and Devens jurisdiction is not resumed, Harvard will need to investigate changes to its current zoning structure. Changes that should be investigated include, at least, rezoning portions of existing residential/agricultural lands to commercial and/or industrial use, and possibly making adjustments to permitted uses and requirements within the existing zones to allow additional business growth. Overlay zones or special development districts could also be considered to help facilitate such changes.

Similar to zoning, Residential Harvard’s housing stock would become more diverse by resuming jurisdiction due to Devens’ existing residential developments. This issue is discussed in more detail under the Population & Housing Element. Development of various residential “build-out” scenarios that achieve desired or target levels of housing proportions for housing types such as affordable housing and senior housing could be helpful in planning for Harvard’s future growth under various disposition outcomes. In lieu of resuming jurisdiction of Devens, Harvard could also consider overlay zones or special development districts to help allow for housing stock diversity in the future. This is further discussed in Section 1.4 (Population & Housing).

For both commercial/industrial development and housing stock considerations, the existing Devens zoning scheme, if adopted post-disposition, would continue to allow for expedited permitting while also affording Harvard greater local representation.

<b>Land Use Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Provide greater percentage of land for commercial and industrial uses.	Harvard portion of Devens contains 19.9 acres zoned commercial acres and 633.0 acres zoned industrial.	Investigate the level and extent of changes to Harvard’s current zoning structure that would be required to achieve a land use mix comparable to what would be realized by resuming jurisdiction.
Provide more diverse housing opportunities.	<p>Multiple housing stock options (new or refurbished).</p> <p>Increased housing choice diversity provided by existing housing within Devens, (including Grant Road) which is generally denser than required by Residential Harvard’s large-lot zoning.</p> <p>Opportunities for additional Chapter 40B and/or senior housing units without affecting any areas within Residential Harvard. (25% of Devens housing must be affordable, per 1994 Reuse Plan.)</p>	<p>Assuming jurisdiction is resumed, consider potential opportunities for further diversifying housing stock within Devens, to provide a wide range of housing choices.</p> <p>**See Population &amp; Housing Element Summary for additional details.**</p>



### 3.0 NATURAL RESOURCES & OPEN SPACE

The 1994 Devens Reuse Plan called for a substantial open space component, comprised of active recreational areas, passive recreational areas, and conservation areas (Table 1.3.1). The mixture of open space types and ownership that has resulted is rather similar to the mixture that exists within Residential Harvard, so resuming jurisdiction is expected to essentially result in an extension of a natural resource and open space mosaic that Harvard is accustomed to, complementing the Town of Harvard's overall open space acreage and diversity. Regardless of the disposition outcome, many of the discussed resources, such as the Nashua River, have regional importance from both protection/conservation and stewardship perspectives and therefore should be appropriately addressed in the Town of Harvard's various land use documents.

Table 3.1: Devens Open Space

<u>Type</u>	<u>Acres</u>
Recreation fields	53
Oxbow National Wildlife Refuge	350
Other Conservation	227
Total	603

Ownership and management of the Oxbow National Wildlife Refuge by the U.S. Fish and Wildlife Service is not expected to change under any Devens dispositions scenario. Likewise, existing Conservation Restrictions held by the Trustees of Reservations are not expected to change or potentially impact Harvard if jurisdiction is resumed. Other open space areas, particularly Rogers Field, are expected to potentially come under direct or more direct control and management by the Town of Harvard. Exact details of this would be determined as part of the disposition process. As a result of the 2015 super Town Meeting, Rogers Field will be placed in permanent conservation.

Assuming jurisdiction would afford the Town of Harvard greater say over the protection of viewsheds and natural resources within the town's boundaries, furthering the goals of preserving Harvard's "defining landscapes" and local watershed and aquifers. Devens' position on the landscape, directly adjacent to Residential Harvard to the west, and at slightly lower elevations, places it within the viewshed of much of Residential Harvard, including from portions of Fruitlands. Likewise, natural resources such as groundwater aquifers and several wetland and stream systems (including the Nashua River) cross the Harvard-Devens border, and their integrity can therefore be affected by land use activities on either side of this line. While the town might not have exclusive say over viewshed and natural resource related

issues in all cases (for example, federal and state jurisdiction could still supersede local rule in some instances), jurisdiction would provide increased regulatory oversight by, at least, Harvard’s land use boards including the Planning Commission and the Conservation Commission. Having greater say in these cases would provide Harvard with greater assurance that development and conservation will proceed in line with the town’s stated goals. However, such oversight would likely result in a greater workload that is currently experienced in Harvard, likely requiring additional resources.

Harvard’s comprehensive Open Space Action Plan, contained within the Town’s Open Space & Recreation Plan, could rather easily be extended to also include open space areas within Devens, especially due to a comparable open space plan already existing for Devens, with a recent revision in 2015. These like-minded plans could be folded together to create a unified open space plan, or the existing action plans could conceivably be carried out in parallel in their existing form. Having one entity (e.g. one Conservation Commission or one open space committee) could potentially provide greater efficiencies and consistency in maintaining and stewarding the properties covered. However, the workload capacity of one such entity is expected to be greater than that currently required by Harvard, so additional resources would likely be required.

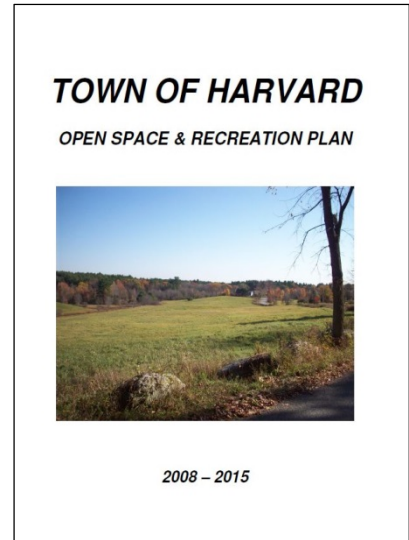
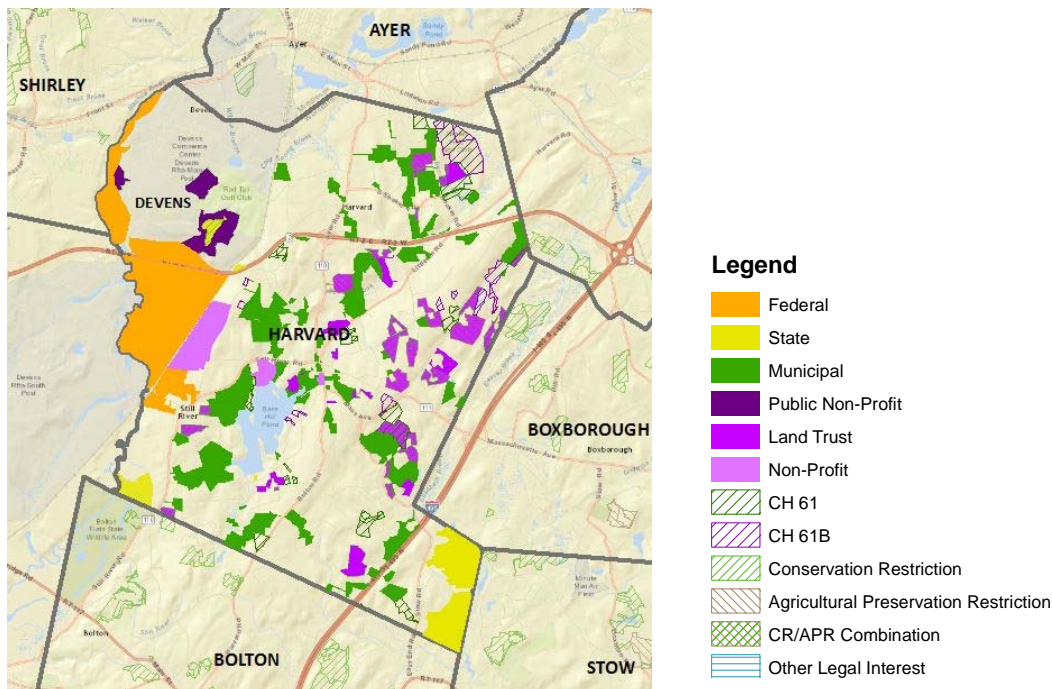


Figure 3.1: Residential Harvard and Devens Open Space



Two active recreational areas within Devens are of special note: Rogers Field and Mirror Lake. Rogers Field is a large multi-use field complex within Devens that has been used in recent years for athletic events such as lacrosse and soccer tournaments and camps. Future development around Rogers Field (e.g. Grant Road, Willard Heights, and Vicksburg Square) could potentially limit some active recreational uses as competition for parking develops.

Mirror Lake is a water recreation area somewhat similar to Bare Hill Pond, with its waterfront operated (as of 2015) by Mirror Lake Management, Inc. Such 3<sup>rd</sup>-Party management could possibly be extended to also cover Bare Hill Pond. Resuming jurisdiction of these areas could potentially increase the recreational opportunities directly available to the Town of Harvard, and could potentially increase recreational-based revenue for the Town. Devens Annual Reports estimate that 250,000 people visited Devens for active or passive recreation in FY2010, and 300,000 in FY2011.



Figure 3.2: Rogers Field

<b>Natural Resources &amp; Open Space Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Conservation of natural, historic and cultural resources.	Includes Rogers Field, Mirror Lake, other open space areas	Assess need to adjust land use regulations and/or strategies (such as Conservation Restrictions).
Preservation of Harvard's defining landscapes.	Harvard afforded a greater say in protection of viewsheds and natural resources	Identify if additional resources will be required by the Harvard Planning Board to process applications within Devens.  Assess potential changes to Harvard Zoning Bylaw to include viewshed issues related to Devens.
Protection of local watersheds and aquifers.	Harvard afforded a greater say in protection of viewsheds and natural resources	Identify if additional resources will be required by the Harvard Conservation Commission to process applications within Devens.
Open Space Action Plan implementation.	Existing Devens Open Space Plan with its own action items  Possible revenue-generating opportunities via active recreational facilities (especially Rogers Field and Mirror Lake).  Increased maintenance and management responsibilities (both active recreation and conservation lands).	Assess the viability of combining the Harvard and Devens open space plans, checking for areas of both compatibility and potential goal or action-related conflicts. Identify additional resources required.  Investigate the potential for extending the management structure currently used at Mirror Lake at Bare Hill Pond, or for placing both facilities under the same management.  Assess potential recreational-based revenue opportunities for the Town of Harvard from Rogers Field and Bare Hill Pond.

## 4.0 POPULATION & HOUSING

Resuming jurisdiction of Devens would assist with diversifying Harvard’s overall available housing stock, a Master Plan goal, due to Devens’ existing mix of residential developments. Devens contains a mix of neighborhoods comprised of both former military housing and new housing constructed as part of redevelopment efforts. The newest, and one of the largest developments (at 124 units), is Emerson Green, also known as “Grant Road”.



Figure 4.1: Former military housing, Devens



Figure 4.1: Rendering of Emerson Green  
(Source: Emily Hall, Union Studio Architects)

The full addition of existing and permitted affordable housing within Devens (required to be 25% per the 1994 Reuse Plan) would assist Harvard in meeting its affordable housing goals. While only limited additional housing (after construction of the Grant Road development) would be permitted under Devens’ existing housing cap of 282 total residential units, the remaining allowable units would provide some opportunity for additional housing stock diversity. The housing cap could conceivably be revisited at some time in the future, and if this were to happen, Devens could potentially provide opportunities for additional developments similar to Grant Road, or potentially for other affordable, age-restricted, or multi-family housing.

Harvard should consider development of various residential “build-out” scenarios that achieve desired or target levels of housing proportions for housing types such as affordable housing and senior housing could be helpful in planning for Harvard’s future growth under various disposition outcomes. This would allow for a better understanding of what actions and numbers of units would be needed to meet required/desired housing stock percentage goals. In lieu of resuming jurisdiction of Devens, Harvard could also consider overlay zones or special development districts to help allow for housing stock diversity in the future.

To assist with the stated goal of ensuring that new housing is harmonious with existing community character, existing neighborhoods within Devens should be kept intact to the extent practical. Due to some Devens neighborhoods crossing historic town boundaries, special or additional provisions may be

required during the disposition process, for some disposition options (in lieu of host towns each resuming jurisdiction of their portion of Devens), to ensure that these neighborhoods do not become split by jurisdictional lines. For this, and other housing-related issues, extensive public feedback should be solicited from the residents and landowners.

<b>Population &amp; Housing Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Increasing Harvard’s housing type diversity.	Integrating population and providing services for 282 units (cap per 1994 Reuse Plan). After Grant Road, 22 units can be added.	Assuming jurisdiction is resumed, consider potential opportunities for further diversifying housing stock within Devens if the existing housing cap were modified or removed.  Assuming jurisdiction is resumed and the Devens housing cap is maintained, consider ways for remaining allowable units within Devens to provide additional housing stock diversity.
Meeting affordable housing goals.	25% of Devens housing must be affordable, per 1994 Reuse Plan	Investigate residential build-out scenarios to determine actions and numbers of units required to meet affordable housing goals with and without Harvard resuming Devens jurisdiction.
Ensuring that new housing is harmonious with existing community character.	A portion of former officers housing is in Ayer.	As part of weighing disposition options, investigate the ability to allow existing Devens neighborhoods to remain intact and within the same jurisdiction.

## 5.0 HARVARD'S ECONOMY

A town's economic activity is generally tied to the amount, occupancy, and availability of land for commercial and industrial activity and growth. To help facilitate future economic activity and growth, increasing the amount of commercial land within the town is identified as an issue by the Master Plan. Land available and zoned for commercial development within Residential Harvard is currently limited to the Ayer Road Commercial District ("C-District), which makes up 2.4 percent of the town's acreage, and the town currently has no industrially-zoned land. While some successful commercial activity does occur within the existing C-District and there is some potential for economic growth, it is constrained by, at least, a lack of sewer and water infrastructure suitable for more intensive commercial/industrial activity, existing lot sizes (some undersized, per the Zoning Bylaw) that create challenges for development or redevelopment, and challenging zoning requirements. However, it is possible that the town is not interested in easing requirements or making additional infrastructure available in this part of town, as its character could potentially change with added development.

As noted in Section 1.2 (Land Use), resuming jurisdiction of Devens would greatly, and immediately, increase the percentage of land available to commercial and industrial uses within the Town of Harvard. Notably, this would occur without directly affecting any zoning within Residential Harvard, or within the existing C-District. In addition to the approximately 3.5 million square feet of commercial and industrial space that currently exists in Devens, there is a potential for an additional 4.5M square feet per the 1994 Reuse Plan. Economic aspects of Devens and its relationship to Harvard are further discussed in Appendix 3: Economic and Financial Findings.

For both commercial/industrial and housing stock considerations, the existing Devens overlay district, if continued post-disposition, would continue to allow for expedited permitting while also affording Harvard greater local representation. Both of these factors provide for a business-friendly atmosphere that can assist with both continued and additional economic activity.



<b>Harvard's Economy Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Adding acres of commercial land (currently limited to Ayer Road C District).	Existing commercial and industrial areas.	Investigate the level and extent of changes to Harvard's current zoning structure that would be required to achieve a level of commercial and industrial space comparable to what would be realized by resuming jurisdiction.
<p>C District limitations:</p> <ul style="list-style-type: none"> <li>- Lack of sewer &amp; water infrastructure</li> <li>- Market potential</li> <li>- Size of existing lots (some undersized)</li> <li>- Zoning requirements.</li> </ul>	4.3M sq. ft. of additional commercial space.	<p>Update previous studies and/or perform new studies (as needed) to assess costs of extending sewer and water infrastructure from Devens to the C-District.</p> <p>Assess full impact (including traffic) of a build-out of the Ayer Road C-District, under existing conditions and with upgraded utilities.</p>
Ease of permitting.	Existing consolidated permitting process.	If jurisdiction is resumed, consider provisions to allow a consolidated permitting process to continue within Devens.



## 6.0 CULTURAL RESOURCES

Residential Harvard and Devens have a mixture of shared and unique histories, and both contain numerous historic and cultural resources.

While not required for a cultural/historic resource (e.g. “site”) to be considered worthy of protection, recognition of significant cultural resources frequently includes an identification and documentation process, and listing on the National Register of Historic Places (“NRHP”) and/or listing with the Massachusetts Historical Commission on the State Register of Historic Places (“SRHP”).

Four sites within the Town of Harvard’s historic boundaries are listed on the NRHP: Shaker Village, Harvard Town Center, Fruitlands, and Vicksburg Square, the last of which is within Devens. Numerous additional sites within both Residential Harvard and Devens have been listed on the SRHP. The location and distribution of these sites is shown in Figure 6.1.

Towards the Master Plan goal of preparing a comprehensive community-wide historic resources survey, resources within Devens have previously been examined, with some now listed at either the state or federal level, and others noted as eligible for further evaluation. Therefore, at least a portion of the work required for the Devens portion of a comprehensive resources survey has been completed. This work and its results could easily be folded into similar efforts undertaken for Residential Harvard. Any “next-step” items identified by previous Devens resource studies should be considered for follow-up by the Town of Harvard if jurisdiction is resumed.

If Harvard resumes jurisdiction of Devens and a demolition delay bylaw is formally considered, the costs and benefits of also including Devens should be considered. Special provisions for resources within Devens, Vicksburg Square in particular, may be warranted, as their futures are currently uncertain and if they are to be preserved, significant funding may be required.

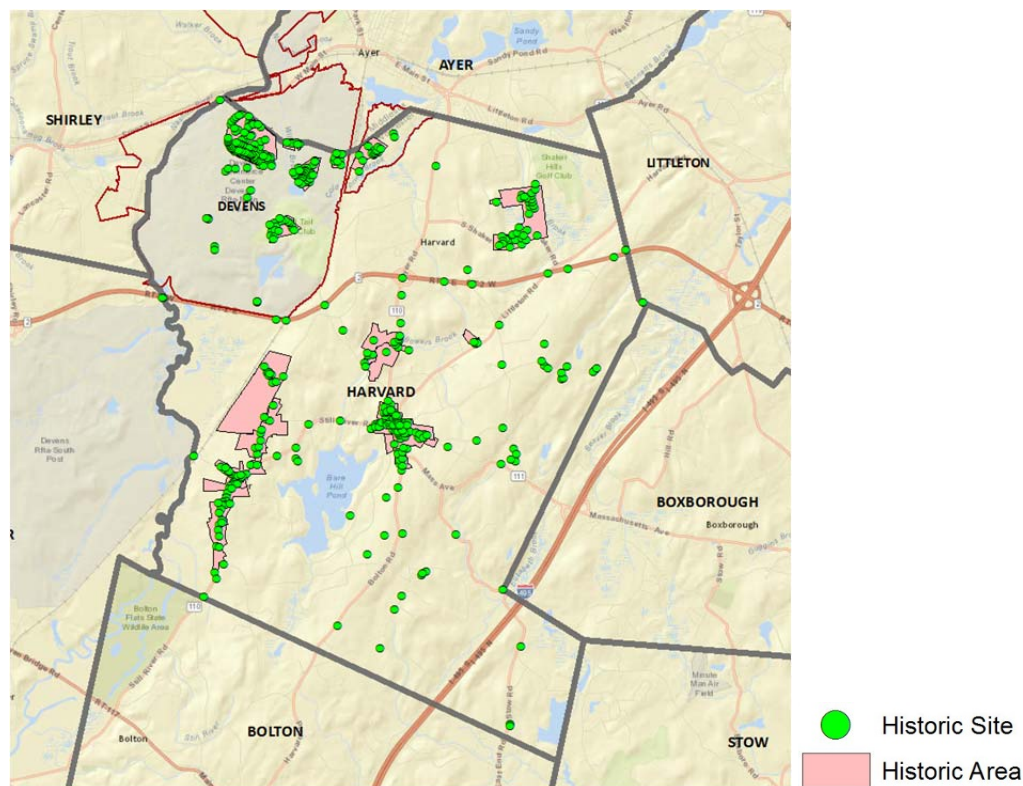


Figure 6.1: State Register of Historic Places sites within Harvard and Devens

Cultural Resources Element Summary		
Issue	Devens Effect	Recommendations
Preserving historic structures and locations.	Vicksburg Square on National Register of Historic Places, numerous sites on State Register.	If jurisdiction is resumed, consider further study of, and listing, additional potentially-eligible sites to the NRHP and MHP.
Preparing a comprehensive community-wide historic resources survey.	Studies of historic resources have been completed; additional sites may be eligible for NRHP.	If jurisdiction is resumed, include Devens information within a comprehensive survey; consider previously-identified follow-up items (as appropriate).
Considering adoption of a demolition delay bylaw.	Future of Vicksburg Square remains uncertain.	If pursued, consider special provisions for some resources within Devens.
Historic resource oversight.	Due to additional historic resources, increases the oversight responsibilities of the Historic Commission.	Consider need for additional funding and/or staff to support Commission activities.

## 7.0 COMMUNITY SERVICES & FACILITIES

Along with the success of the redevelopment that has occurred at Devens has come the need for support services comparable to typical municipal services. Throughout Devens' redevelopment, these services have been provided by MassDevelopment either directly or through a contract-based arrangement. Summaries of community service and facility functional areas are below, additional analysis is provided in Appendix 1: Devens Findings, and Appendix 3: Economic and Financial Findings.

### Government Structure

In order to maintain an adequate government structure for delivery of services and provision of community facilities, Harvard's current governmental structure and administration would likely require additional capacity and resources if Devens jurisdiction was resumed. While the general Selectmen-Administrator structure could likely be retained, additional administrative resources would likely be required to provide an adequate level of service. A detailed study of the governmental structure of towns similar to a combined Harvard and Devens should be performed to assess the extent of resources that would be needed, along with any potential structural changes in governmental operations.

### Public Services

MassDevelopment currently serves both economic development and community service roles within Devens. As such, Harvard's future level of responsibility for providing services and facilities to Devens could vary by Disposition scenario. Regionalization of additional services could benefit the Town of Harvard and may be an option. Existing examples of successful regionalization efforts include emergency dispatch and hazardous waste collection.

A side-by-side comparison of the service areas of fire/ambulance, police, and public works are shown in Figure 7.1 as examples of comparative service needs and resources within both residential Harvard and Devens. Note that the Devens numbers are for all of Devens, not just the portion within Harvard's historic boundaries. A detailed department-based analysis is needed to fully assess current staffing levels and the staffing levels that would be required to adequately serve the Town of Harvard if Devens jurisdiction is resumed.

Figure 7.1: Selected Public Service Department Comparison – Harvard and Devens

Service	Harvard	Devens
Fire and Ambulance	(essentially volunteer, with stipends) 1 Chief, paid 1 Deputy chief 3 Lieutenants 20 FFs/EMT volunteers 60 ambulance volunteers 260 fire calls/year 350 medical calls/year 600 calls/year avg. total	(paid) 1 Chief 2 Deputy chiefs 4 Lieutenants 14 FFs/EMTs 1,700 calls/year avg.
Police	Chief 2 Sergeants 5 Patrol Officers 6 Reserve Officers 8,000 activities (2014)	(MA State Police) 1 Lieutenant 1 Sergeant 8 Troopers Barracks Investigator 11,000 activities (2013)
Public Works	65 miles of road Town & school parking lots Town & school grounds Conservation Area mowing 11 staff members	53 miles of road 15 parking lots 80 ac. rec field mowing 150+ ac. Municipal grounds Approx. 18 staff members

Note: Devens data based on Devens Annual Reports.

Schools

MassDevelopment is responsible for education of Devens children until Disposition; at which point a town (or towns) will assume responsibility. Education of Devens children is currently provided by the Harvard Public Schools under a 7-year contract. This arrangement currently yields a net financial benefit to Harvard Public Schools, with Devens tuition providing \$1.23 million in FY2015. Notably, this figure has experienced a 2.8 percent annual growth since 2011.

Upon disposition, MassDevelopment will no longer require a contract for the education of Devens children. If Harvard resumes jurisdiction the Devens student population will most likely attend Harvard Public Schools. Based on financial analyses done to date, the anticipated additional tax base is expected to cover these additional education costs. Details regarding the school-related impact of Devens on Harvard under the existing contract arrangement are contained within Appendix 3: Economic and Financial Findings.

Utilities

Devens contains extensive public utility systems that adequately service existing Devens development and have capacity for future growth. The viability of extending water and sewer services to Residential Harvard has been previously studied to various extents (see Appendix 1: Devens Findings), and should be further investigated, possibly in connection with recommendations within the Transportation and Circulation Element discussion in Section 1.8. Devens’ electric power provider, which acts as a municipal utility, could potentially be extended to cover Residential Harvard, possibly providing net cost savings to town residents and businesses. A study to examine the feasibility of this electrical interconnection should be pursued. Tie-in of any of infrastructure or utilities could provide Harvard with significantly more “freeboard” in future development options and with greater sustainability of the town’s current development patterns.

<b>Community Services &amp; Facilities Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Maintaining an adequate government structure for delivery of services and provision of community facilities.	Assuming jurisdiction would likely require additional municipal management.	Investigate the governmental structures, resources, and staffing levels maintained by towns comparable to a combined Harvard and Devens.  Investigate extension of public utilities from Devens to Harvard.
Capacity to manage current municipal services.	Devens (through MassDevelopment) has departments such as fire, police, and public works.  Jurisdiction would likely require expanded Harvard staff and equipment.	Perform detailed department-based resource and needs assessment to identify resources anticipated to be required if jurisdiction is resumed.  Investigate additional opportunities to maximize resources through regionalization efforts.

## 8.0 CIRCULATION & TRAFFIC

Several circulation and traffic issues listed within the Master Plan are common to many, if not most, suburban and even rural communities throughout southern New England and elsewhere. These include traffic calming measures to slow vehicle speeds, measures to increase pedestrian safety, adding or expanding sidewalks within commercial areas with high traffic volumes, and developing alternative or multi-modal transit opportunities such as bikeways. Two issues specific to Harvard include the impact of Devens-related traffic on Ayer Road, and the general barrier to direct travel between Devens and Residential Harvard.

Harvard's most significant circulation and traffic issue related to Devens is the lack of any existing, direct road connection. While roads did once run between Fort Devens and what is now Residential Harvard, as can be seen on historic mapping (Figure 8.1), their permanent closure by the U.S. Army during Fort Devens' active period effectively sealed the Harvard portion of the Fort's boundary from vehicular traffic. No roads were specified for re-establishment as part of the 1994 Reuse Plan (which opted instead for a Gateway approach, using Jackson and Verbeck Gates) and no roads have been re-established during Devens' redevelopment. The result is a necessity to pass through either Ayer or Lancaster to travel between Harvard and Devens, which is at least undesirable from a community connectivity standpoint.

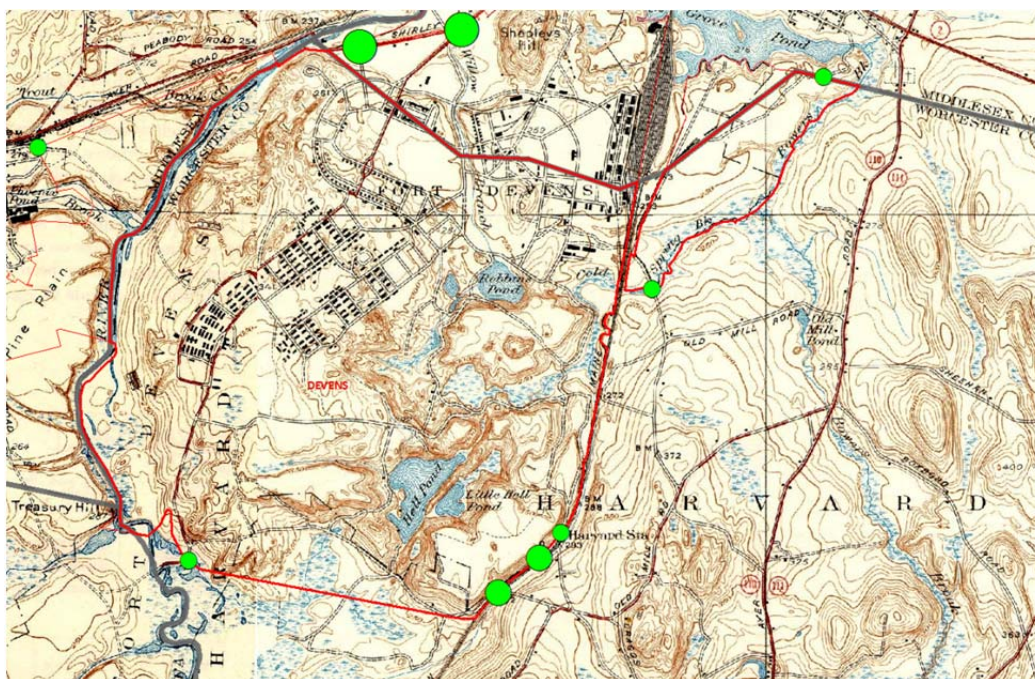


Figure 8.1: Historic access points into portions of Devens (basemap source: USGS)



Roadway re-establishment would have some benefits to the town. Among these would be shorter travel time and travel distances and potential fostering of a “one Harvard” community feeling. As part of any road re-establishment efforts, provisions could also be included for expansion/connection of public utilities along identified route(s). Such “co-locating” could potentially assist in minimizing costs and impacts of utility expansion/connection in the future.

Re-establishing any former through-roads would present challenges. Among these would be potential environmental impacts, environmental permitting, cost, land rights (if former roads have reverted to private ownership), and impacts to landowners and/or neighborhoods within both Devens and Residential Harvard. A feasibility and traffic simulation study would be needed to properly explore any road re-establishment options.

The lack of direct road connection, while an obstacle, should not necessarily be viewed as a deal-breaker. To varying degrees and scales, it is common for portions of a town to be directly accessed only from other towns. Such situations existing within Harvard at a small residential scale, and in Boxborough at a slightly larger commercial scale (Figure 8.2). The Town must decide whether direct Harvard-Devens roadway connection is required, from a practical standpoint and for day-to-day operations, and whether it is feasible.



Figure 8.2: Tech Central office buildings, Boxborough

Concerns with traffic along Ayer Road have at least some linkage to Devens, especially when related to truck traffic. This issue is further aggravated by the lack of direct Harvard-Devens road connections, as discussed above. Devens’ 1994 Reuse Plan did note that, as of that time “several measures [would] be considered to reduce potential truck impacts on local roadways and to downtown Ayer and Route 110/111 in Harvard. These include[d] encouraging truck traffic to use Route 2 by providing easy access through improvements to Barnum and Patton Roads.” Further, “monitoring [would] be performed to assess impacts of these trucks on local streets. Additional measures such as truck restrictions at Barnum Gate [would] be considered if truck impacts on local streets require further mitigation. All new users with

significant truck use at Devens [would] be required to file truck routing plans and permits may be issued stipulating truck routes.”

Several studies related to Ayer Road traffic have been previously conducted, references to these can be found in Appendix 1: Devens Findings, Section 1.8. Based on the results of these studies and continued concern within this issue, preparation of a summary document identifying potential strategies to discourage but not necessarily prohibit truck traffic on Ayer Road should be considered, regardless of disposition, and additional mitigation sought from MassDevelopment and/or MassDOT.

Lastly, while certainly not a substitute for direct vehicular roadway connection, the viability of a bikeway between Harvard and Devens should be investigated, regardless of disposition. This is item that has been mentioned to various extents in several planning documents (in both Residential Harvard and Devens) and should be further explored. Such multi-modal transportation opportunities can provide both recreational and viable commuting/transport functions for at least a portion of communities, and state and federal funding is frequently available for such projects.

<b>Circulation &amp; Traffic Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Ayer Road traffic, including from Devens	Redevelopment has contributed to increased Ayer Road traffic. Trucks from Devens commonly use Ayer Road instead of Jackson Road.	Summarize previous traffic studies and update as needed. Approach MassDevelopment and/or MassDOT for mitigation measures.
General road access to Devens	No existing direct road access between Harvard and Devens. The Harvard- Devens road network discontinuity is unusual, but not unprecedented.	Perform routing and feasibility study to identify potential connections and approximate anticipated costs.
Bikeway opportunities	The potential of a Harvard-Devens bikeway has been noted in several documents.	Further investigate bikeway viability and potential funding sources.



## 9.0 DEVENS MATRIX

Land Use Element		
Issue	Devens Effect	Recommendations
Provide greater percentage of land for commercial and industrial uses.	Harvard portion of Devens contains 19.9 acres zoned commercial and 633.0 acres zoned industrial.	Investigate the level and extent of changes to Harvard's current zoning structure that would be required to achieve a land use mix comparable to what would be realized by resuming jurisdiction.
Provide more diverse housing opportunities.	<p>Multiple housing stock options (new or refurbished).</p> <p>Increased housing choice diversity provided by existing housing within Devens, (including Grant Road) which is generally denser than required by Residential Harvard's large-lot zoning.</p> <p>Opportunities for additional Chapter 40B and/or senior housing units without affecting any areas within Residential Harvard. (25% of Devens housing must be affordable, per 1994 Reuse Plan.).</p>	<p>Assuming jurisdiction is resumed, consider potential opportunities for further diversifying housing stock within Devens, to provide a wide range of housing choices.</p> <p>**See Population &amp; Housing Element Summary below for additional details.**</p>

Natural Resources & Open Space Element		
Issue	Devens Effect	Recommendations
Conservation of natural, historic and cultural resources.	Includes Rogers Field, Mirror Lake, other open space areas	Assess need to adjust land use regulations and/or strategies (such as Conservation Restrictions).
Preservation of Harvard's defining landscapes.	Harvard afforded a greater say in protection of viewsheds and natural resources	<p>Identify if additional resources will be required by the Harvard Planning Board to process applications within Devens.</p> <p>Assess potential changes to Harvard Zoning Bylaw to include viewshed issues related to Devens.</p>

<b>Natural Resources &amp; Open Space Element (continued)</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Protection of local watersheds and aquifers.	Harvard afforded a greater say in protection of viewsheds and natural resources	Identify if additional resources will be required by the Harvard Conservation Commission to process applications within Devens.
Open Space Action Plan implementation.	<p>Existing Devens Open Space Plan with its own action items</p> <p>Possible revenue-generating opportunities via active recreational facilities (especially Rogers Field and Mirror Lake).</p> <p>Increased maintenance and management responsibilities (both active recreation and conservation lands).</p>	<p>Assess the viability of combining the Harvard and Devens open space plans, checking for areas of both compatibility and potential goal or action-related conflicts. Identify additional resources required.</p> <p>Investigate the potential for extending the management structure currently used at Mirror Lake at Bare Hill Pond, or for placing both facilities under the same management.</p> <p>Assess potential recreational-based revenue opportunities for the Town of Harvard from Rogers Field and Bare Hill Pond.</p>

<b>Population &amp; Housing Element</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Increasing Harvard’s housing type diversity.	Integrating population and providing services for 282 units (cap per 1994 Reuse Plan). After Grant Road, 22 units can be added.	<p>Assuming jurisdiction is resumed, consider potential opportunities for further diversifying housing stock within Devens if the existing housing cap were modified or removed.</p> <p>Assuming jurisdiction is resumed and the Devens housing cap is maintained, consider ways for remaining allowable units within Devens to provide additional housing stock diversity.</p>
Meeting affordable housing goals.	25% of Devens housing must be affordable, per 1994 Reuse Plan	Investigate residential build-out scenarios to determine actions and numbers of units required to meet affordable housing goals with and without Harvard resuming Devens jurisdiction.
Ensuring that new housing is harmonious with existing community character.	A portion of former officers housing is in Ayer.	As part of weighing disposition options, investigate the ability to allow existing Devens neighborhoods to remain intact and within the same jurisdiction.

<b>Harvard's Economy Element</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Adding acres of commercial land (currently limited to Ayer Road C District).	Existing commercial and industrial areas.	Investigate the level and extent of changes to Harvard's current zoning structure that would be required to achieve a level of commercial and industrial space comparable to what would be realized by resuming jurisdiction.
C District limitations: <ul style="list-style-type: none"> <li>- Lack of sewer &amp; water infrastructure</li> <li>- Market potential</li> <li>- Size of existing lots (some undersized)</li> <li>- Zoning requirements.</li> </ul>	4.3M sq. ft. of additional commercial space.	Update previous studies and/or perform new studies (as needed) to assess costs of extending sewer and water infrastructure from Devens to the C-District.  Assess full impact (including traffic) of a build-out of the Ayer Road C-District, under existing conditions and with upgraded utilities.
Ease of permitting.	Existing consolidated permitting process.	If jurisdiction is resumed, consider provisions to allow a consolidated permitting process to continue within Devens.

<b>Cultural Resources Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Preserving historic structures and locations.	Vicksburg Square on National Register of Historic Places, numerous sites on State Register.	If jurisdiction is resumed, consider further study of, and listing, additional potentially-eligible sites to the NRHP and MHP.
Preparing a comprehensive community-wide historic resources survey.	Studies of historic resources have been completed; additional sites may be eligible for NRHP.	If jurisdiction is resumed, include Devens information within a comprehensive survey; consider previously-identified follow-up items (as appropriate).
Considering adoption of a demolition delay bylaw.	Future of Vicksburg Square remains uncertain.	If pursued, consider special provisions for some resources within Devens.
Historic resource oversight.	Due to additional historic resources, increases the oversight responsibilities of the Historic Commission.	Consider need for additional funding and/or staff to support Commission activities.

<b>Community Services &amp; Facilities Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Maintaining an adequate government structure for delivery of services and provision of community facilities.	Assuming jurisdiction would likely require additional municipal management.	Investigate the governmental structures, resources, and staffing levels maintained by towns comparable to a combined Harvard and Devens.  Investigate extension of public utilities from Devens to Harvard.
Capacity to manage current municipal services.	Devens (through MassDevelopment) has departments such as fire, police, and public works.  Jurisdiction would likely require expanded Harvard staff and equipment.	Perform detailed department-based resource and needs assessment to identify resources anticipated to be required if jurisdiction is resumed.  Investigate additional opportunities to maximize resources through regionalization efforts.

<b>Circulation &amp; Traffic Element Summary</b>		
<b>Issue</b>	<b>Devens Effect</b>	<b>Recommendations</b>
Ayer Road traffic, including from Devens	Redevelopment has contributed to increased Ayer Road traffic Trucks from Devens commonly use Ayer Road instead of Jackson Road.	Summarize previous traffic studies and update as needed. Approach MassDevelopment and/or MassDOT for mitigation measures.
General road access to Devens	No existing direct road access between Harvard and Devens.  The Harvard- Devens road network discontinuity is unusual, but not unprecedented.	Perform routing and feasibility study to identify potential connections and approximate anticipated costs.
Bikeway opportunities	The potential of a Harvard-Devens bikeway has been noted in several documents.	Further investigate bikeway viability and potential funding sources.

**APPENDIX 1:**  
**DEVENS FINDINGS**





# Devens Findings

Town of Harvard, MA

Town of Harvard Master Plan - Devens Impact Evaluation

October 14, 2015







# **Devens Findings**

prepared for

**Town of Harvard, MA  
Town of Harvard Master Plan - Devens Impact Evaluation**

**October 14, 2015**

prepared by

**Burns & McDonnell, Inc.**

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APPENDIX A: Glossary of Terms and Acronyms

## 1.1 INTRODUCTION

As part of a Devens Impact Evaluation for the Town of Harvard, Massachusetts' Master Plan Steering Committee (MPSC), Burns & McDonnell has reviewed available documentation pertaining Devens. Results of this review are presented as "findings" within this report. **The text from other documents that is contained within this report is excerpted VERBATIM.** As such, it should be considered within the context and timeframe within which it was originally created.

Findings are grouped by topic area, with topic areas structured to mirror Elements chapters within the Town's draft Master Plan update. For each topic area, findings are arranged in a chronological format under the headings "past", "present", and "future". These category headings are related to the applicability of the concepts discussed within the included excerpts. Overviews of both Devens' history and planning efforts related to Devens are presented below as part of the Introduction.

Findings presented herein are intended to be in an objective format, although they are both factual and non-factual in nature.

A systematic organization of findings related to Devens will assist the process of providing recommendations to ensure Devens is comprehensively addressed by the MPSC's current Master Plan efforts and so that the Town of Harvard can set appropriate Devens-related goals.

### 1.1.1 HISTORICAL OVERVIEW

#### **Devens Reuse Committee Report to the Town of Harvard On Devens Five-Year Review**

In 1917, Camp Devens was established as a military base in Massachusetts. The Army purchased tracts of land over a period of years from the area's landowners and farmers. As often pointed out by local historians<sup>1</sup> the acquisition of the land was an unpopular process. The Army purchased the land by eminent domain, arriving at the amount to be paid by averaging out the value of all lands. The result of this arrangement meant those holding "sprout" land (deforested land often also called "stump" land) were paid more than the going rate for their properties and those owning farmland were paid less. Descendants of these earlier farmers still reside in the area, among them: Farwell, Farnsworth, Longeley and Willard.

At first, the post was entirely temporary barracks of wood or tents. It was not until the mid-thirties that the permanent brick buildings were constructed coinciding with the establishment of Fort Devens. This new "permanent" phase did not however change the somewhat flexible boundaries over the years. It was the habit of the Army to divest some of its land during periods of relative peace and to increase its holdings at other times. In Harvard for example the Army sought permission to open and close a connecting road according to its necessity. The local selectmen, who were responsible for the roads, complied. The area known as Devens Crest in Ayer was military housing until the Army decided to sell the properties to private owners.

All during the years that the Federal Government owned town lands, it recognized the original town boundaries and never removed the boundary markers despite many construction projects. This recognition is due to the fact that in most cases divested lands are returned to the local jurisdiction. This is not the same as ownership. Nor does it preclude the federal agency from selling land it is divesting. It has been the policy of the Federal Government to use a hierarchical procedure when divesting land parcels. First, other federal agencies may bid for the land; second, states may request lands; and then local municipalities may bid for land. Finally, the land is offered on the open market. However, in most instances, the land returns to the original local jurisdiction.

When the Army began to close military bases during the early 1990s Base Realignment and Closure Acts (BRACs) governed the procedure by which lands were returned to local jurisdiction. Before the BRACs, the military sold off its holdings while local jurisdiction and local zoning governed new development. Often this led to massive economic losses. Stripped of all federal in-kind payments and support (for schools, for example) local communities were rocked by unemployment and lowered tax bases until resold land was developed – a process that took years and from which many communities have never recovered.

The BRACs were designed to alleviate this problem by supplying redevelopment funds to local communities that created Redevelopment Authorities to oversee and plan for the orderly disposition of lands. Except Devens.

Upon the announcement of the Fort Devens closing, then Governor Weld declared by executive order (#215) that the Redevelopment Authority for Devens would be a state agency, the Massachusetts Government Land Bank (the Land Bank)<sup>2</sup>. From that moment on, all negotiations for Devens lands had to be made through the Land Bank.

The three towns were asked to ratify this arrangement in December of 1994. Also established by this vote is the Devens Enterprise Commission, which holds all local permitting authority: health, conservation, planning board, zoning board of appeals and more. Fearful of the possibility of bankruptcy the towns concurred having been assured they would be permitted to participate in the redevelopment decisions.<sup>3</sup>

As a state agency, and therefore second in the hierarchical order mentioned above, the Land Bank bid for and acquired all the land not previously spoken for by other federal agencies. Thus, Massachusetts Government Land Bank became the landowner as well as the Redevelopment Authority. As part of the process prior to the vote, all three towns had placed bids for municipal land; only Shirley's request appears to have been honored to date.

*Source document footnotes:*

1. Elvira Scorgie, Harvard and Ralph Richardson, Ayer
2. Massachusetts Government Land Bank was merged with the Massachusetts Government Finance Agency (MDFA). The new agency is referred to as MassDevelopment.
3. It is to be noted here, that almost immediately after the announcement of the closing, the Town of Lancaster and the U. S. Fish and Wildlife entered in to an agreement that the portion of Devens in Lancaster would become part of an expansion of the Oxbow National Wildlife Refuge. Also a one hundred-acre parcel has been set aside for that town's future needs when the Army divests itself of the South Post.

*NOTE: Chapter 498, An Act Creating the Devens Enterprise Commission, granted MassDevelopment authorities typically held by municipalities, including land use permitting and provision of public services such as public works. Under the structure created by Chapter 498, the towns of Harvard, Ayer, and Shirley are not required to provide services to Devens, and in exchange, receive no tax revenue from Devens.*

***Timeline: Phases of Devens History***

**I. Pre-Devens**

Site used for Camp Stevens during the Civil War

**II. Active Camp/Fort Devens**

1917 Camp Devens established in Harvard, Ayer, and Shirley

1931 Fort Devens established (permanent installation)

**III. Closure**

1991 BRAC announces closure

1994 Chapter 498 passed by State Legislature to transition Fort Devens to non-military use; laid out Devens Enterprise Commission (for streamlined permitting); powers and responsibility of Land Bank (now called “Mass Development”) Mechanism for changing zoning is via a super town meeting.

**IV. Chapter 498 / Redevelopment**

2006	Disposition Vote (Scenario 2B)				
	Harvard: No	Ayer: No	Shirley: Yes		Result: Fails
2009	Vicksburg Square vote (condominiums)				
	Harvard: Yes	Ayer: No	Shirley: Yes		Result: Fails
2012	Vicksburg Square vote (rental units)				
	Harvard: No	Ayer: No	Shirley: Yes		Result: Fails
2015	Article 1 / Shirley Village Growth District (senior residential housing)				
	Harvard: Yes	Ayer: Yes	Shirley: Yes		Result: Passes
2015	Article 2 / Village Growth District (health care uses)				
	Harvard: Yes	Ayer: Yes	Shirley: Yes		Result: Passes
2015	Article 3 / Rogers Field-Willow Brook-Adams Circle (swap)				
	Harvard: Yes	Ayer: Yes	Shirley: Yes		Result: Passes
2015	Article 4 / Grant Road (rezone as commercial)				
	Harvard: No	Ayer: Yes	Shirley: Yes		Result: Fails

**V. Post-Redevelopment**

2033 – Decision on disposition of historical lands (by this date)

## 1.1.2 PAST PLANNING OVERVIEW

### *Timeline: Devens-Related Planning Documents and Events*

- 1951: Town of Harvard Zoning Bylaw adopted
  - 1969: first Town of Harvard Master Plan (Eliot, *Planning for Harvard: Comprehensive Plan*)
  - 1988: Town of Harvard Master Plan Update (Connery Assoc., *Harvard Town Plan*)
  - 1993: Devens Planning Charrette
  - 1994: Devens Reuse Plan
  - 2001: Tri-Town Review of the Devens Plan – Phase 1
  - 2002: Tri-Town Review of the Devens Plan – Phase 2
  - 2003: Town of Harvard Master Plan Update
  - 2005: Devens Disposition Planning report (VHB) **\*\*unapproved\*\***
  - 2006: Devens Disposition Executive Board 2006 Reuse Plan (Sasaki Assoc.) **\*\*unapproved\*\***
- (2016: *Town of Harvard Master Plan Update – in progress*)

### **Devens Reuse Plan – 1994**

(Goals)

- The Reuse Plan provides for the future use of Fort Devens to achieve the defined community and state goals and objectives. Adoption of the Reuse Plan will result in the following positive impacts:
  - The Reuse Plan will help to reduce the negative fiscal impacts on the towns by putting the burden and responsibility on the state for provision of services and management of Devens. The Reuse Plan provides a mechanism for the orderly transition from military to civilian use. The infusion of \$200 million of state money and resources will be used to prepare the site for development and to position and distinguish the site favorably in the very competitive real estate market.
  - A fundamental element of the Plan is the approximately 1,300 acre open space network encompassing critical natural resources such as wetlands, floodplains, wildlife and plant habitat, and aquifers. Lands that provide logical connections as part of the open space and recreation system are also included.

- The reuse planning process has provided the communities with the ability to determine the future of Devens, while leaving the cost of implementation to the state.

### **Tri-Town Review of the Devens Plan – Phase 1 – May 2001**

*NOTE: This document assesses progress of the Reuse Plan as of 2001 and provides recommendations.*

- The Towns must [as of 2001] have independent and ongoing professional advice, monitoring, coordination, grant proposal preparation, and planning expertise in relation to activities at Devens and their impacts on the host communities.
- The Towns and MassDevelopment must [as of 2001] develop and agree to a Disposition Plan within the next five years. The basic elements of the Disposition Plan should be in place even earlier, ideally within the next two years. The towns should create acceptance criteria for the return of jurisdiction. In order to make informed decisions on development and disposition steps, the Towns will need more, and more complete information from MassDevelopment on a range of issues.

### **Harvard 2002 Master Plan**

(Introduction)

- Only a few years after the Town Plan Committee finished the second master plan, Harvard's last dairy farm closed. So did Fort Devens.

(The Devens Factor)

- Neither Eliot in Planning for Harvard nor Connery Associates in the [1988] Town Plan had much to say about the large section of Harvard that lies west of the railroad, a section known historically as Shabikin and later, as Fort Devens. That both of Harvard's previous master plans include very few references to Fort Devens makes sense, to a point. ... Since the federal government had jurisdiction over the base, Harvard and its master plan consultants paid relatively little attention to the future of Fort Devens, concentrating instead on what the town could rightfully control: land use and development east of the railroad.
- ...A complicated, expensive and contentious disposition process ensued, culminating in an event that many residents who lived in Harvard at the time recall today [in 2002] with bitterness: the "Super Town Meeting" of December 1994.
- For a number of reasons, Harvard has [as of 2002] found it very difficult to contend with the transformation of Devens to an industrial center.
  1. First, the redevelopment process has moved at a much faster pace than anyone expected when the Devens Reuse Plan was written several years ago. As a result, the impacts of



new and different land uses at Devens are a fact of daily life in Harvard today, particularly for neighborhoods along Ayer Road north of Route 2.

2. Second, since MassDevelopment is a public corporation operating under a mandate from the legislature, it has an interest in developing Devens quickly, visibly, and to the maximum extent allowed under the Devens Reuse Plan. Often, MassDevelopment's interests and Harvard's seem completely antithetical.
3. Third, Harvard residents are divided over the future of Devens, which means that the town does not speak with one voice in conveying what it wants from MassDevelopment.
4. Finally, MassDevelopment's operating style is closed and insular while Harvard (like the vast majority of small towns) is accustomed to an open, public process for making decisions that affect the community. Differences in style, constituencies and institutional interests make it almost impossible for MassDevelopment and Harvard to see eye-to-eye about priorities at Devens -- priorities that affect one-fifth of Harvard's total land area and its only substantial aquifers.

*The 2002 Master Plan makes two recommendations concerning Devens.*

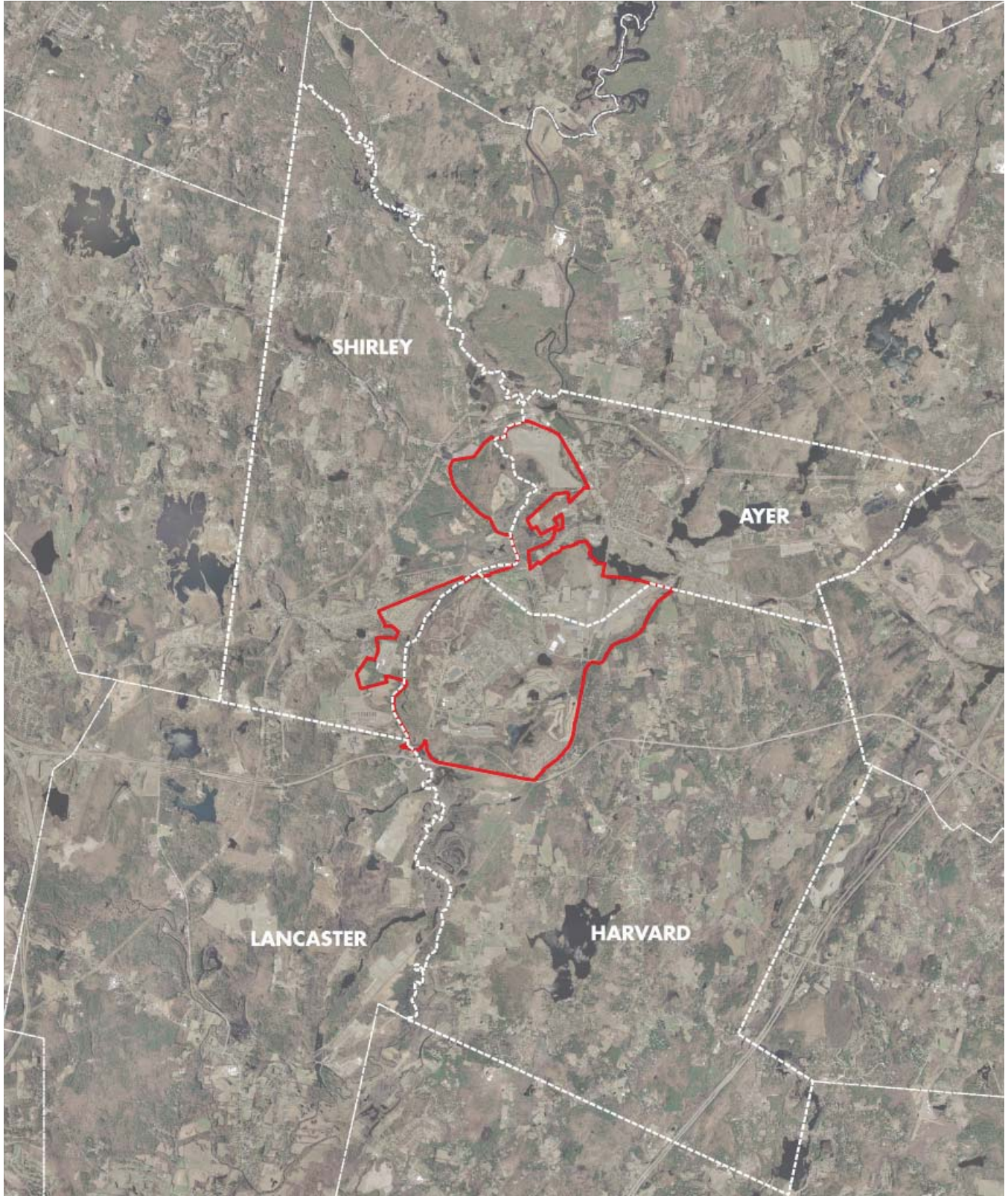
- In conjunction with MassDevelopment, Harvard should co-sponsor a review of opportunities and constraints for the use and development of land at Salerno Circle. Some town officials have expressed an interest in using the land for a future school site while representatives of MassDevelopment see Salerno Circle as a desirable area for corporate offices. Given Salerno Circle's proximity to the border between Harvard and Devens, its eventual redevelopment will have a direct, visible impact on nearby neighborhoods. Harvard should accept MassDevelopment's offer to finance a concept plan and feasibility study for this area.
- Begin to plan for a formal system of open space, pedestrian and bicycle connections between Harvard and Devens. The Board of Selectmen should work with Mass Development and the residents of Old Mill Road and Depot Road to replace the existing chain-link fence and gates with attractive wooden posts, signs and kiosks such as those found at the trail entrances to many conservation areas.

*NOTE: Devens is not mentioned within the 2002 MP's Visions and Goals.*

### **Devens Disposition Planning report (VHB) – July 2005**

*This Plan, which was not approved, cites the 2006 Joint Report (Scenario 2B disposition option) – 2nd Draft, August 2006.*

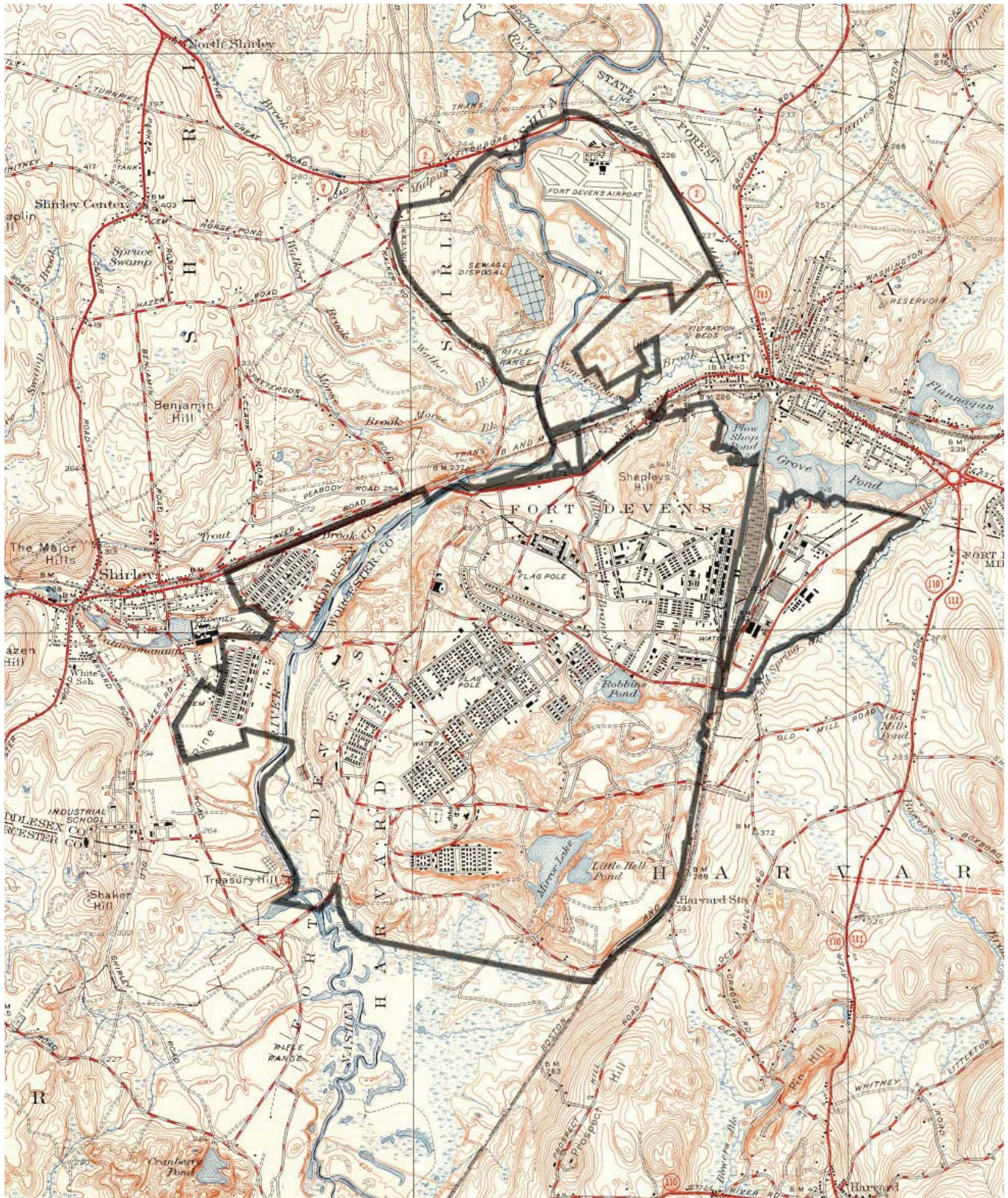
- To formulate a disposition plan, and recognizing the Commonwealth's focus on increasing housing supply as a component of economic development, MassDevelopment retained Sasaki Associates as its consultant to help draft a revised reuse plan.
- Between March and June of 2005, the planners convened a series of charrettes, culminating with a proposal to include a range of new housing units in any ultimate disposition scenario.
- MassDevelopment's planners concluded that the housing market could absorb up to 2,700 new units over a 20-year period.
- The DDEB hired its own planning consultant - Vanasse Hangen Brustlin, Inc. -to vet MassDevelopment's housing numbers and conduct a peer review of the financial model being developed to assess the economic impacts of the various disposition scenarios. The report, filed in June 2005, found that the economic model was sound and indicated a maximum of 2,300 new housing units could be absorbed over a 20-year term.
- Both analyses indicate the 1,800 new housing units proposed under Scenario 2B herein can be absorbed into the regional housing market over the next 20 years.



DEVENS BOUNDARIES OVERLAID ON THOSE OF NEARBY TOWNS

From unapproved "2006 Devens Reuse Plan" (Sasaki Plan)

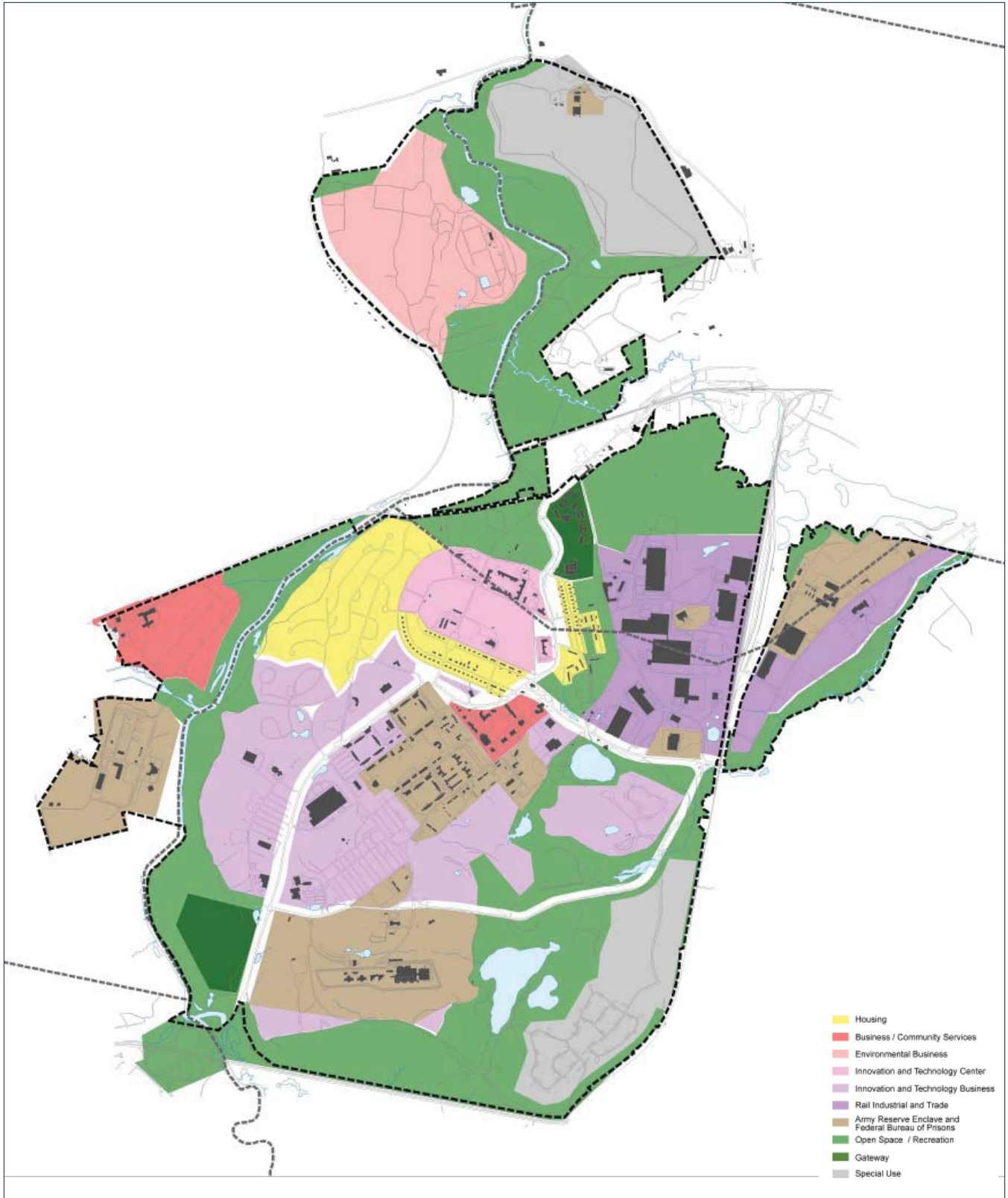




HISTORIC MAP OF FORT DEVENS WITH PRESENT BOUNDARIES

From unapproved "2006 Devens Reuse Plan" (Sasaki Plan)





From unapproved "2006 Devens Reuse Plan" (Sasaki Plan)

## 1.2 LAND USE

### 1.2.1 Past

#### **Devens Disposition Executive Board 2006 Reuse Plan (i.e. “Sasaki Plan”)**

*This Plan, which was not approved, noted that:*

- At the heart of Devens is the forty-four acre Rogers Field, which the military once used as a formal parade ground and now [as of 2006] serves as a community green and recreation center. Surrounding Rogers Field is Vicksburg Square, which contains a number of historic structures that once housed the Army’s administrative offices (now vacant), as well as single-family homes, townhouses and condominiums that once housed Army officers.

Devens’ commercial districts are to the south and east of the Rogers Field district and feature employment campuses, industrial warehouses and large-scale high-tech research buildings.

Privately held land at Devens mixes with government uses in a proportion which suggests an ongoing transition from military to civilian identity. Large parcels are held for government use such as the training center and the military hospital. In addition to these facilities, which [as of 2006] are expected to be maintained for a significant term, evidence of military withdrawal are evident. For example, while the majority of Devens’ residential structures - largely in the Grant Road, Shirley and Davao neighborhoods - have been razed for site remediation, the roads and infrastructure that once served them remain in place.

Devens adopted its current zoning code following the recommendations of the 1994 Reuse Plan. It zones the majority of the developable land for commercial and industrial uses and sets aside a minimal area for residential development. It also considers open space as a zoning district and includes a number of overlay districts to protect sensitive ecological areas.

#### **Freedom’s Way Heritage Landscape Inventory – June 2006**

(Harvard History)

- By the mid-19th century Harvard was ...heavily involved in apple production, which continues today. Industry in Harvard remained small scale. There were three mill areas: one along Old Mill Road in northwest Harvard ; one along Bowers Brook just north of Harvard Center near the town dump (parts of the race are still visible here); and the Shaker mill on Sherry Road.

**1.2.2 Present**

*No relevant document excerpts found.*

**1.2.3 Future**

*No relevant document excerpts found.*

## 1.3 NATURAL RESOURCES & OPEN SPACE

### 1.3.1 Past

#### Devens Reuse Plan – 1994

- A range of soil types exist on the Main and North Post of Fort Devens, including glacial till, outwash deposits, and high silt content soils.

Approximately 440 acres, 10% of the site, are underlain by a high yield aquifer. Another 1,370 acres, 30% of the site, are underlain by a medium yield aquifer.

On the Main and North Posts, approximately 530 acres, 12% of the site, generally around the Nashua River and its tributaries, lie within the 100 year floodplain. The majority of the wetlands on the site are forested wetlands generally occurring along the stream and floodplain corridors.

A baseline study prepared by the U.S. Army Corps of Engineers has determined that there is no known occurrence of federally listed threatened or endangered plant species, and no known permanent occupations by federally listed threatened or endangered animal species.

#### Devens Disposition Executive Board 2006 Reuse Plan (i.e. “Sasaki Plan”)

*This Plan, which was not approved, noted that:*

- Devens is located in the Nashua River watershed along the western edge of Massachusetts’ coastal plain.
- The Devens landscape features ecologically significant riparian and wetland areas, northern hardwood forests, and glacial eskers. Sand and gravel comprise most of the surficial geology at Devens, and the soils are generally well-drained and suitable for development.

### 1.3.2 Present

#### Devens Disposition Executive Board 2006 Reuse Plan (i.e. “Sasaki Plan”)

*NOTE: This plan was not approved.*

- Roughly 1,100 acres [of Devens] are protected as open space.
- The Massachusetts Secretary of Environmental Affairs has designated three areas in and around Devens as Areas of Critical Environmental Concern.



- Along the Nashua River corridor the United States Fish and Wildlife Service's Oxbow National Wildlife Refuge conserves approximately eight miles, or 1,667 acres, of freshwater marshes, oxbow wetlands and upland habitat, 836 of which are within the Main and North Posts.

The Oxbow NWR features a limited trail system where visitors can hike and access the river. The USFWS plans to develop a visitors' center at the head of the trail system to direct and inform visitors about the refuge.

- In 1989 the U.S. Environment Protection Agency (USEPA) listed Fort Devens on its National Priorities List, a list of hazardous waste sites in need of long-term remediation under the Superfund Program. Of the areas initially identified as requiring environmental evaluations, the USEPA has approved 236 sites for no further action.

The USEPA performed the first Five Year Review for the former installation in September 2000 and a second Five Year Review took place in September 2005. Both reviews found that the Army's remedial actions to protect human health and the environment were sufficient.

*NOTE: The U.S. Army is responsible for any additionally-required environmental remediation associated with activities at the former Fort Devens.*

### **Town of Harvard Open Space and Recreation Plan – 2008-2015**

- A 2006 study, titled "Harvard Reconnaissance Report" and conducted in conjunction with the Massachusetts Department of Conservation and Recreation, asked residents to identify priority landscapes in the community. Participating Harvard residents "were emphatic that the character of their Town was defined by the whole Town, not by isolated areas", choosing to identify instead "a series of critical concerns related to heritage landscapes and community character". These concerns included... The resolution of the future jurisdiction of the Devens area in the northwest corner of Harvard, that was formally Fort Devens and "historically part of the community but has always been set apart with much of the area inaccessible to Harvard residents".
- [The Joint Boards of Selectmen (JBOS) was, as of 2008] developing an action plan with specific recommendations regarding the entities and organizations which should be responsible for managing the effects of growth on water supplies, wastewater, population, housing, open space and traffic in the four-town region through a Communities Connected by Water planning project supported by a grant from the Massachusetts Executive Office of Environmental Affairs. The JBOS is partnered with the Nashua River Watershed Association, Montachusett Regional Planning Commission, and MassDevelopment. The Devens Enterprise Commission and The Massachusetts Audubon Society are also providing substantial input. Recreational facilities, trail linkages, mixed income housing and commercial and manufacturing businesses are potential benefits for the Town of Harvard, if

Harvard does reincorporate some or all of the area that lies within its bounds. The Town is currently investigating the full financial ramifications of reincorporation in response to concerns about hazardous waste sites, traffic, protection of an aquifer, increased infrastructure, costs of police, fire, and ambulance, and costs schooling of Devens residents.

- [One] regional connection is through the Nashua River and the Nashua River Watershed Association (NRWA) The Nashua River flows along the western border of Harvard and the western border of the Devens portion of Harvard. The NRWA is an environmental non-profit organization that serves as an educator, advocate, and steward. The NRWA provides technical assistance to the 31 communities in north central Massachusetts and southern New Hampshire that comprise the watershed. Their main goals are: to restore and protect water quality for people, fish and wildlife; to conserve open spaces for water quality, wildlife habitat, farms, forests and recreation; and to encourage careful land use with well-planned development.
- Unlike the unconsolidated and thin deposits of till typical of most of Harvard, the outwash gravels and sands found on Devens are useful and exploited for construction material.
- Bowers Brook from Pin Hill in Harvard north to Grove Pond in Ayer is considered, as well as the Black Pond area are considered to be a Natural Heritage and Endangered Species Program (MA NHESP) BioMap core habitat. The Bare Hill Pond area is considered Living water core habitat. As of October 2008, MA NHESP has identified nine State-designated Priority Habitat areas within Harvard and the Harvard section of Devens as well.
- Much of the Oxbow NWR and Devens South Post constitute a state-designated MA NHESP Rare Wetlands Wildlife site. This whole area plus Bolton Flats WMA represents such a large, relatively undisturbed haven for wildlife that it is identified as a core habitat area in the Nashua River Habitat Assessment Report (MAS 2000).
- Two pockets of sandy glacial outwash are underlain by groundwater aquifers in Harvard. One extends under the eastern portion of Devens in a lobe from the millponds in Ayer down to Mirror Lake. Within this vast medium-yield aquifer is a large high-yield core. This valuable natural resource is vulnerable to contamination because of its porous soils plus past military and current commercial/industrial land use. According to the 2001 Communities Connected by Water study, groundwater quality monitoring has shown minimal contamination to this aquifer. The Devens Water Protection Report, 1994, cites the existence of four high capacity wells that can supply the full build out needs of Devens.
- Detailed inventories and surveys of plants have been conducted for Devens (published in Rhodora) and the Oxbow National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service.
- Within Harvard and the Harvard section of Devens there are nine areas designated as estimated habitats of rare wildlife on the Natural Heritage and Endangered Species Program map dated October 2008.

- As was brought to the forefront during the drive to attract a major pharmaceutical manufacturing plant at Devens, the [Nashua River Valley] view shed remains critical part of Harvard's scenic resources. Cooperative efforts with neighboring Towns and with Devens, presently controlled by Mass Development, is essential to maintain this view shed.
- The Nashua River, a state-designated Scenic River, is an excellent recreational, conservation, and wildlife resource. Access to the river is by way of the Oxbow National Wildlife Refuge. Additional protection of this river corridor and greenway from the Massachusetts Division of Fisheries and Wildlife's Bolton Flats in the south to the Oxbow will be important to maintain this resource. [As of 2008] the U.S. Army still has holdings at Devens' South Post, south of Route 2. However, Federal legislation now provides for the transfer of those lands to the U.S. Fish & Wildlife Service for inclusion in the Oxbow National Wildlife Refuge upon the Army's departure.
- In 2004 the Harvard Parks and Recreation sought and obtained funding to develop a recreation trail to link the Ryan Land playing fields on Depot Road to Harvard Park and to link into the extensive trail network on Devens. ... [As of 2008] the Recreation Trail Committee [was] applying for a large State grant through the Department of Conservation and Recreation to help fund the actual construction of this trail.
- Since the closure of Ft. Devens, approximately 900 acres of wetlands and land along the Nashua River, north of Route 2, have been transferred to U.S. Fish & Wildlife Service for inclusion in the Oxbow National Wildlife Refuge. Should the Army declare the land south of Route 2 (South Post) excess, federal legislation requires its transfer to U.S. Fish & Wildlife Service.

### **Freedom's Way Heritage Landscape Inventory – June 2006**

(Critical Concerns: Open Space Linkages)

- Harvard already has extensive conservation land and open space. Some of it is town-owned; some belongs to organizations such as the Harvard Conservation Trust; and other parcels are in private or institutional ownership. Many of Harvard's large natural areas are regional landscapes shared by several communities and administered by state and federal government agencies. These include Bolton Flats Wildlife Management Area, Delaney Wildlife Management Area, Devens and the Oxbow National Wildlife Refuge.
- The portion of Devens land just north of Route 2 sits upon a major aquifer. The Mirror Lakes are a large kettle hole where the underground aquifer is visible at the surface. A recreation area, the larger of the two lakes is used for swimming and fishing in season.

*NOTE: As of 2015, Mirror Lake is on the Massachusetts Public Health Fish Consumption Advisory list, for Largemouth Bass. Bare Hill Pond is also on this list.*

## **Devens 2011 Annual Report**

(Recreation)

- Visitors from all over New England [as of 2011] choose Devens as the location to host their sporting and social events. Devens maintains some of the best outdoor fields in the area for soccer, lacrosse, ultimate frisbee, touch football, and softball. Open year-round for fishing and hiking, Mirror Lake is an attraction for many to swim and kayak during the summer as well. In FY11, approximately 300,000 participants used Devens recreational facilities.
- Red Tail Golf Club is an award-winning 18-hole, championship, public golf course offering scenic views of the New England landscape. It is the first Audubon International Signature Sanctuary golf course in the region.

## **Devens 2012 Annual Report**

(Recreation)

- Devens features more than 1,000 acres of open space for recreational enjoyment.
- Rogers Field is located in the heart of Devens and provides 44-acres of uninterrupted space for large sporting events.
- Willard Park Complex, with its multi-use field and three softball fields, hosts college showcases and tournaments.
- Devens residents and visitors can swim, canoe, kayak, and fish at Mirror Lake.
- With more than 600 acres of conservation and preservation land, Devens is a beautiful area to hike, bike, run, and walk.

## **Devens 2014 Annual Report**

- The Nashua River Rail Trail now offers twelve miles of hiking trails through Devens and the watershed towns of Groton, Pepperell, and Dunstable, and into Nashua, NH. Devens joined with WalkBoston to create a map featuring trails and courses that are both enjoyable and easy to navigate. Each self-guided walk includes distances and descriptions of sights and scenes throughout the community. Copies of WalkBoston's Devens map will be available free of charge at the main gates and the Devens Recreation office.

### **U.S. Fish & Wildlife Service Oxbow National Wildlife Refuge (website)**

- Located just 40 miles west of Boston, the 1,667-acre refuge lies along almost eight miles of the Nashua River in north-central Massachusetts. Within its boundary is a diverse array of habitats beneficial to wildlife: wetlands, forested uplands, old fields, oxbow ponds, and, of course, the river itself. The U.S. Fish and Wildlife Service manage the refuge for a variety of wildlife species, with a special emphasis on migratory waterfowl and birds that are dependent on grass/shrub land habitat.
- Oxbow National Wildlife Refuge was established through a number of land transfers from the Department of Defense to the U.S. Fish and Wildlife Service beginning in 1974. The Service acquired an additional 120 acres in the Town of Harvard in 2001 and will continue to work with partners to protect additional wildlife habitat in the area.

### **1.3.3 Future**

#### **Freedom's Way Heritage Landscape Inventory – June 2006**

(Critical Concerns: Views)

- Residents also identified several regional landscapes where change has already occurred. ... Additional large-scale development on the Harvard portion of Devens is proposed that will further impact the view west from Prospect Hill. ... A related view issue is the future of the South Post of Devens, still under military ownership, but could be acquired by the US Fish and Wildlife Service. This agreement is neither permanent nor binding, leaving the future of a major section of the former Fort Devens still in question.

## 1.4 POPULATION & HOUSING

### 1.4.1 Present

#### Devens 2010 Annual Report

- Beginning July 1, 2009, the town of Harvard became the educational provider for all Devens school-aged children. The new contract provides education continuity for Devens, since students from all grades will attend Harvard schools. Previously, children attended Shirley for the lower grades and Harvard for the upper grades. The contract with Harvard for children in grades six through twelve will expire in June 2011, and in June 2012 for those in grades Pre-K through five. During FY2010, 43 Devens children attended school in Harvard.

*NOTE: Devens' educational provider contract is renewed on an annual basis.*

#### Devens Economic Advisory Team (DEAT) report - October 2011

*NOTE: This report discusses the proposed (2011) Vicksburg Square residential development, consisting of 246 housing units (1-3 BR), 80% to be income restricted. This plan was not approved, due in part to concerns that it was out of balance.*

- The project is contingent upon a change to the Devens Reuse Plan allowing an increase in the percentage of affordable housing from the current 25% to 80%; a zone change from Innovation and Technology Center to Residential; and the successful negotiation of a Land Disposition Agreement with MassDevelopment.
- The Devens Reuse Plan and the Town of Harvard Master Plan both contain clear principals related to the development of affordable housing at Devens:
- Sect 5.31 – implementation  
Until such time as the long-term disposition of Devens is resolved, Harvard must find ways to include the entire community in decisions that affect all residents. This applies not only to civic, social and cultural activities but also to planning -5.32- .... for the types of housing built at Devens in the future. Harvard should take a strong advocacy role in assuring that new neighborhoods at Devens do not absorb a disproportionate share of Chapter 40B units.
- Pattern in the Reuse Plan  
In order to accommodate the needs of a broad range of income groups, and to ensure the stability of the residential core, approximately twenty-five (25%) of the 282 units to be reused or constructed under the Reuse Plan will be reserved for low and moderate income individuals or families, and/or special needs populations. It is recognized that the success of

the residential reuse is dependent on a balance between market rate and the affordable/special needs population.

### **Harvard's Affordable Housing Plan – 2011**

*Note: Unlike most other documents reviewed, this plan considers the Devens population as part of the Town of Harvard.*

- In addition to the existing or planned 45 affordable units at Foxglove Apartments, Harvard Green Condominiums, and Trail Ridge, the town's three affordable housing developments permitted under the comprehensive permit provisions of MGL 40B include:
  - 9 rental units at the Harvard Inn and Great Elms, acquired and preserved as affordable, by the local nonprofit Harvard Conservation Trust.
  - 13 affordable ownership units, part of a larger project developed under Phase I of the Devens Reuse Plan. (Seventy-seven of the units are in Harvard.) This development was also initiated by the Town as a Local Initiative Project.
  - 5 affordable ownership units under the Harvard Homeowner Repair (HOR) Program.

*(NOTE: See below for current [2015] Chapter 40B Subsidized Housing Inventory.)*

- MassDevelopment, the lead agency for the redevelopment of the former Fort Devens oversees all development including transitional, affordable and market-rate housing on Harvard lands within the Devens Enterprise Zone. The Reuse Plan for Devens calls for the development of 282 units of permanent housing, 25 percent affordable, of which 241 will be located in Harvard. Phase One was completed in 2002, and Harvard's share of the 102 unit homeownership development (77 units, 13 affordable) were added to the State Subsidized Housing Inventory in September 2003.
- The Devens Factor (*Note: same term used in 2002 Harvard Master Plan*)

No discussion of Harvard's future development would be complete without a reference to the "elephant in the room," Devens. Following the announcement in 1991 of the closure of Fort Devens, the largest military base in New England, the Commonwealth negotiated to buy the 4,400 acre property from the federal government. Through state legislation in 1993, and votes on a Reuse Plan and Zoning By-Law the following year by Harvard, Ayer and Shirley, MassDevelopment became the owner of lands within the Devens Regional Enterprise Zone (Devens) in 1996. The Army retained responsibility for remediation of sites contaminated by its activities, but a new, unified permitting agency – the Devens Enterprise Commission (DEC) – became the regulatory body. The Devens Reuse Plan, a comprehensive strategy to reuse the buildings, infrastructure, land and open space to produce jobs and environmental protection, became the mechanism for ensuring an orderly transition from military to civilian use, a process that was expected to take 20- 40 years. The plan envisioned a large industrial

and office park threaded with conservation and recreational open space, with small pockets of housing, adaptive reuse of historic military buildings, and business-serving retail services.<sup>13</sup> Twenty-five percent of the planned 282 units of housing (241 in Harvard), were to be reserved for low or moderate income households.<sup>14</sup>

Implementation has occurred far more rapidly than expected, and nearly two-thirds of the allowed buildout is already in place, or has been committed to. Some 100 families now call Devens home. The two agencies (DEC and MassDevelopment) and three host communities<sup>15</sup> have completed their five-year reviews of the implementation of the Reuse Plan. And, following one of the recommendations of this five-year review, the host towns of Ayer, Harvard and Shirley, MassDevelopment, and the DEC have agreed to begin the disposition planning effort which will determine the final governance structure of Devens (whether jurisdiction reverts to the towns or it becomes the state's 352nd municipality). If the host towns and MassDevelopment agree that more housing should be allowed on Devens, great care will need to go into its planning and implementation. This may be a unique opportunity to create an exciting new residential community that includes a significant number of affordable units in the mix, but the challenges are daunting.

*Source document footnotes:*

13. Tri-Town Five Year Review of the Devens Reuse Plan

14. Defined at the time as households earning not more than 80 percent of area median income.

15. Ayer, Harvard and Shirley. The Lancaster portion of Fort Devens—the South Post—was not part of the base closure area and so is not part of Devens.

- ...the future disposition and/or development of housing at Fort Devens could potentially change Harvard's 10 percent figure. It is the Town's intent [as of 2011] to achieve and maintain the 10 percent threshold.
- Based on currently available data on housing in Harvard and at Devens [as of 2011], the 2010 census data is not expected to have a significant impact on Harvard's production goals. Appendix A includes the anticipated affordable housing development at Devens over the next five years.



**Town of Harvard Master Plan Update (Draft) - 2015**

Chapter 40B Subsidized Housing Inventory

Project Name	Address	Type	Restrictions	SHI Units	Total Units
Great Elms (1)	105 Stow Road	Rental		5	5
Harvard Inn (1)	11 Fairbank	Rental		4	4
Harvard Elderly / Foxglove Apartments	253, 453 Ayer Rd	Rental	Over age 62; or disabled of any age	24	24
Harvard Green	Lancaster Court Road	Ownership		8	32
Estates at Harvard Hills	Walnut St. and Elm Road (Devens)	Rental		8	n/a
Harvard HOR Program	Ayer Road	Ownership		1	1
Harvard HOR Program	Old Mill Road	Ownership		1	1
Harvard HOR Program	Withington Lane	Ownership		1	1
Harvard HOR Program	Littleton Road	Ownership		1	1
Harvard HOR Program	Massachusetts Avenue	Ownership		1	1
Trail Ridge at Harvard (2)	Littleton Country Road	Ownership	50%: Age 55+	6	20
Harvard Common Condominiums	15 Littleton Road	Ownership		3	12
Bowers Brook	196 Ayer Road	Rental	Age 55+	42	42
Total SHI Units				105	

Source: DHCD, March 2014.

1. Great Elms and Harvard Inn are listed together on the DHCD inventory, but kept separate on this list to reflect current changes. The Harvard Inn was sold for market-rate housing after foreclosure of the property in 2012, and will come off the SHI. Four new units are planned for Great Elms to replace those lost at the Harvard Inn.
2. Trail Ridge is still under construction. Planned build-out: 52 units (13 affordable).

**MA Department of Revenue Financial Management Review (Town of Harvard) – March 2011**

- As reported to the Department of Revenue on the Tax Recapitulation Sheet, Harvard’s FY2011 budget is \$22,954,017. Approximately 73 percent of the budget is funded through the tax levy, 15 percent through state aid, seven percent from local receipts and five percent from other sources. State aid funding is derived from two sources including school and non-education distributions and reimbursements. Of particular note, the amount of unrestricted general government aid Harvard receives (\$1,252,599) ranks second highest on a per capita basis among towns across the state. This large allocation is an artifact of the impact of the former Devens population on the lottery formula.

### **2008 Financial Management Review (Town of Shirley)**

- Although not the subject of our report, the current state of the town's school system poses a considerable threat to long term fiscal stability in Shirley. Almost one out of every five school age kids in grades K-12 is now leaving town for another school system, an increase of 71 percent since FY2000. As a result, \$1.3 million in state education aid that would otherwise remain in town if kids attended their local school is going elsewhere. *The loss of school funds will only worsen next year when the system will lose another \$600,000 when the children of Devens move from Shirley to the Harvard school system.* (emphasis added)

### **Report of the Subcommittee on Strategies to Manage Declining Enrollment – December 2013**

- Harvard enrollment projections completed in recent years have predicted a modest, but steady enrollment decline over the next five years. An enrollment study completed in October 2013 projects K-12 enrollment will decline by 199 students representing a 17.2 percent decline over the next five years.

(Development at Devens)

- Currently there are 140 units of fully built out or renovated housing that is occupied at Devens, which produced 74 students in the 2012/13 (FY13) school year.
- Under the Devens Reuse Plan, there is a cap of 282 housing units at Devens.
- On March 26, 2013, MassDevelopment announced a plan and RFQ process to develop an additional 120 units of housing on a parcel of approximately 70 acres on Grant Road (aka "The Grant Road Project") at Devens. The Grant Road Project plan calls for a mix of single and two family homes, multi-family buildings, elderly housing, nursing homes and municipal uses. If executed, the plan as presented calls for the first residents to move into homes in Fall 2014. Presumably it would take a number of years for the project to be completed and for the 120 units to be fully occupied.
- Based on a historical forecasting approximation of 0.53 students per unit of Devens housing, the Grant Road project if and when fully developed would produce an incremental student population of approximately 64 students. This would have a material impact on overall HPS enrollment.

(Non-Resident Enrollment Management Practices)

- In recent years the school choice–in non-resident K-12 student population combined with the Deven's K-12 student population has grown to approximately 140 students or 12 percent of the total Harvard K-12 enrollment.
- ... It is anticipated the Devens enrollment will continue to climb as a result of expected residential construction in the Devens community. This will require school choice-in

enrollments to be closely monitored so that total K-12 school choice-in enrollments can be reduced as the Devens enrollment increases. It is anticipated a reduction in revenue derived from less School Choice-In students will be more than off-set by greater revenue from an expanding Devens K-12 student enrollments.

(Summary of Proposed Non-Resident Enrollment Guidelines)

- Harvard's non-resident K-12 student population produced by school choice-in and Deven's students combined should be managed so that increased Devens enrollments can allow School Committee to consider decreasing School Choice enrollment numbers.

### **Devens 2014 Annual Report**

- Evergreen Village Collaborative was approved to build 120 units of zero-net-energy capable housing in the Grant Road neighborhood. A mix of large and small single-family homes, duplexes, townhouses, and rental apartments [as of 2014] will be arranged around public open spaces in a style that complements the surrounding community.

**2013 Devens Population Data (Per U.S. Census Bureau - <http://factfinder.census.gov>)**

Subject	Devens CDP, Massachusetts					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total population	1,767	+/-430	1,527	+/-350	240	+/-108
<b>AGE</b>						
Under 5 years	0.2%	+/-0.4	0.3%	+/-0.4	0.0%	+/-13.5
5 to 9 years	2.8%	+/-3.0	3.1%	+/-3.5	0.8%	+/-2.8
10 to 14 years	3.0%	+/-3.0	3.1%	+/-3.5	2.1%	+/-3.6
15 to 19 years	13.0%	+/-7.6	11.7%	+/-6.5	20.8%	+/-20.4
20 to 24 years	5.1%	+/-5.8	5.0%	+/-5.2	5.8%	+/-10.8
25 to 29 years	4.0%	+/-3.5	4.3%	+/-4.1	2.1%	+/-3.4
30 to 34 years	10.3%	+/-5.6	11.9%	+/-6.2	0.0%	+/-13.5
35 to 39 years	11.1%	+/-4.5	11.8%	+/-5.1	7.1%	+/-11.0
40 to 44 years	11.9%	+/-4.2	9.2%	+/-4.1	29.2%	+/-25.2
45 to 49 years	8.0%	+/-5.4	8.3%	+/-5.7	5.8%	+/-10.0
50 to 54 years	9.5%	+/-4.7	9.6%	+/-4.9	8.8%	+/-10.7
55 to 59 years	7.5%	+/-4.4	8.6%	+/-5.0	0.0%	+/-13.5
60 to 64 years	3.7%	+/-2.2	3.5%	+/-2.1	5.4%	+/-8.5
65 to 69 years	3.1%	+/-2.1	3.5%	+/-2.4	0.0%	+/-13.5
70 to 74 years	3.8%	+/-2.7	3.3%	+/-3.1	7.1%	+/-10.0
75 to 79 years	2.2%	+/-2.5	1.8%	+/-2.0	5.0%	+/-12.4
80 to 84 years	0.0%	+/-2.0	0.0%	+/-2.3	0.0%	+/-13.5
85 years and over	0.8%	+/-1.5	0.9%	+/-1.7	0.0%	+/-13.5
<b>SELECTED AGE CATEGORIES</b>						
5 to 14 years	5.8%	+/-6.0	6.3%	+/-7.0	2.9%	+/-4.3
15 to 17 years	5.0%	+/-4.2	3.3%	+/-3.7	15.8%	+/-23.8
18 to 24 years	13.1%	+/-10.7	13.4%	+/-11.5	10.8%	+/-9.0
15 to 44 years	55.5%	+/-8.7	54.0%	+/-8.8	65.0%	+/-23.7
16 years and over	93.9%	+/-5.9	93.5%	+/-7.0	97.1%	+/-4.3
18 years and over	88.9%	+/-9.0	90.1%	+/-10.7	81.3%	+/-23.9
60 years and over	13.6%	+/-5.1	13.0%	+/-5.0	17.5%	+/-17.0
62 years and over	12.2%	+/-4.8	11.4%	+/-4.8	17.5%	+/-17.0
65 years and over	9.8%	+/-3.7	9.5%	+/-4.0	12.1%	+/-16.4
75 years and over	3.0%	+/-2.8	2.7%	+/-2.5	5.0%	+/-12.4
<b>SUMMARY INDICATORS</b>						
Median age (years)	40.2	+/-4.3	39.7	+/-3.5	43.3	+/-6.9
Sex ratio (males per 100 females)	636.3	+/-231.6	(X)	(X)	(X)	(X)
Age dependency ratio	26.5	+/-11.6	(X)	(X)	(X)	(X)
Old-age dependency ratio	12.5	+/-4.5	(X)	(X)	(X)	(X)
Child dependency ratio	14.0	+/-12.4	(X)	(X)	(X)	(X)
<b>PERCENT IMPUTED</b>						
Sex	0.0%	(X)	(X)	(X)	(X)	(X)
Age	0.7%	(X)	(X)	(X)	(X)	(X)

*Note: Data includes prison population.*

**2013 Devens Population Data, Continued (Per U.S. Census Bureau - <http://factfinder.census.gov>)**

Subject	Devens CDP, Massachusetts					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Workers 16 years and over	238	+/-138	132	+/-78	106	+/-68
<b>MEANS OF TRANSPORTATION TO WORK</b>						
Car, truck, or van	80.7%	+/-19.8	69.7%	+/-29.1	94.3%	+/-14.4
Drove alone	58.4%	+/-15.2	68.9%	+/-29.2	45.3%	+/-32.7
Carpooled	22.3%	+/-16.4	0.8%	+/-2.8	49.1%	+/-36.2
In 2-person carpool	0.4%	+/-3.0	0.0%	+/-23.0	0.9%	+/-7.1
In 3-person carpool	20.2%	+/-16.7	0.0%	+/-23.0	45.3%	+/-37.3
In 4-or-more person carpool	1.7%	+/-5.8	0.8%	+/-2.8	2.8%	+/-10.0
Workers per car, truck, or van	1.24	+/-0.18	1.02	+/-0.07	1.54	+/-0.62
Public transportation (excluding taxicab)	0.0%	+/-13.6	0.0%	+/-23.0	0.0%	+/-27.5
Walked	10.9%	+/-12.7	19.7%	+/-22.1	0.0%	+/-27.5
Bicycle	0.0%	+/-13.6	0.0%	+/-23.0	0.0%	+/-27.5
Taxicab, motorcycle, or other means	0.0%	+/-13.6	0.0%	+/-23.0	0.0%	+/-27.5
Worked at home	8.4%	+/-12.9	10.6%	+/-20.5	5.7%	+/-14.4
<b>PLACE OF WORK</b>						
Worked in state of residence	100.0%	+/-13.6	100.0%	+/-23.0	100.0%	+/-27.5
Worked in county of residence	64.3%	+/-15.4	52.3%	+/-29.8	79.2%	+/-17.1
Worked outside county of residence	35.7%	+/-15.4	47.7%	+/-29.8	20.8%	+/-17.1
Worked outside state of residence	0.0%	+/-13.6	0.0%	+/-23.0	0.0%	+/-27.5
<b>Living in a place</b>						
Worked in place of residence	33.6%	+/-21.8	56.1%	+/-35.8	5.7%	+/-14.4
Worked outside place of residence	66.4%	+/-21.8	43.9%	+/-35.8	94.3%	+/-14.4
Not living in a place	0.0%	+/-13.6	0.0%	+/-23.0	0.0%	+/-27.5
<b>Living in 12 selected states</b>						
Worked in minor civil division of residence	44.1%	+/-14.7	36.4%	+/-29.6	53.8%	+/-33.2
Worked outside minor civil division of residence	55.9%	+/-14.7	63.6%	+/-29.6	46.2%	+/-33.2
Not living in 12 selected states	0.0%	+/-13.6	0.0%	+/-23.0	0.0%	+/-27.5
Workers 16 years and over who did not work at home	218	+/-133	118	+/-77	100	+/-68
<b>TIME LEAVING HOME TO GO TO WORK</b>						
12:00 a.m. to 4:59 a.m.	0.0%	+/-14.8	0.0%	+/-25.2	0.0%	+/-28.8
5:00 a.m. to 5:29 a.m.	0.0%	+/-14.8	0.0%	+/-25.2	0.0%	+/-28.8
5:30 a.m. to 5:59 a.m.	0.0%	+/-14.8	0.0%	+/-25.2	0.0%	+/-28.8
6:00 a.m. to 6:29 a.m.	0.0%	+/-14.8	0.0%	+/-25.2	0.0%	+/-28.8
6:30 a.m. to 6:59 a.m.	10.6%	+/-9.0	19.5%	+/-15.9	0.0%	+/-28.8
7:00 a.m. to 7:29 a.m.	51.4%	+/-31.6	50.8%	+/-34.3	52.0%	+/-37.3
7:30 a.m. to 7:59 a.m.	20.6%	+/-18.4	5.1%	+/-9.0	39.0%	+/-34.6
8:00 a.m. to 8:29 a.m.	8.7%	+/-15.3	11.0%	+/-26.2	6.0%	+/-13.3
8:30 a.m. to 8:59 a.m.	0.0%	+/-14.8	0.0%	+/-25.2	0.0%	+/-28.8
9:00 a.m. to 11:59 p.m.	8.7%	+/-12.7	13.6%	+/-20.2	3.0%	+/-10.3
<b>TRAVEL TIME TO WORK</b>						
Less than 10 minutes	43.6%	+/-15.2	72.9%	+/-25.0	9.0%	+/-12.2
10 to 14 minutes	0.9%	+/-3.9	0.0%	+/-25.2	2.0%	+/-8.9
15 to 19 minutes	29.8%	+/-16.8	5.1%	+/-8.6	59.0%	+/-35.4
20 to 24 minutes	2.3%	+/-4.3	4.2%	+/-7.6	0.0%	+/-28.8
25 to 29 minutes	0.0%	+/-14.8	0.0%	+/-25.2	0.0%	+/-28.8
30 to 34 minutes	11.9%	+/-14.1	4.2%	+/-7.6	21.0%	+/-29.4
35 to 44 minutes	6.9%	+/-12.6	12.7%	+/-21.6	0.0%	+/-28.8
45 to 59 minutes	1.8%	+/-3.8	0.0%	+/-25.2	4.0%	+/-9.3
60 or more minutes	2.8%	+/-4.4	0.8%	+/-3.5	5.0%	+/-8.7
Mean travel time to work (minutes)	15.6	+/-7.1	11.0	+/-9.9	21.1	+/-6.8

*Note: Data includes prison population.*

## 1.4.2 Future

*No relevant document excerpts found.*

## 1.5 DEVENS' ECONOMY

*NOTE: See BMcD report "Town of Harvard Master Plan – Devens Impact Evaluation: Economic and Financial Findings" for additional information.*

### 1.5.1 Past

*No relevant document excerpts found.*

### 1.5.2 Present

#### **Devens Disposition Executive Board 2006 Reuse Plan (i.e. "Sasaki Plan")**

*This Plan, which was not approved, noted that:*

- "Spurred by the state's designation of the site as a State Economic Target and Opportunity Area... 3,100 civilian jobs [had, as of 2006] been replaced since the base closed."
- "Per the 1994 Reuse Plan, commercial and industrial development [had, as of 2006] occurred in East and West Rail Industrial Parks and Jackson Technology Park. East and West Rail Industrial Parks are on the eastern portion of Devens and [as of 2006] host[ed] manufacturing companies and warehouses. Jackson Technology Park is in the southwest of Devens and features research and development firms and light industry. Each of these sites has developed the majority of its available land."

#### **Devens Economic Assessment: What Does It Cost To Run Devens? (MRPC) - 2010**

*This document is included under Section 1.7 - Community Services.*

#### **Financial Management Review – March 2011**

- "From our vantage point, the town benefits from a stable tax base, very strong wealth and income levels in comparison to state averages, a moderate overall debt burden and healthy reserve levels including free cash and stabilization. Echoing this opinion, in April 2010, the rating agency Standard & Poor's upgraded the town's credit rating from AA to AA+ with a stable outlook for the future."

### **Devens 2013 Annual Report**

“Unlike other destinations, companies in Devens have access to a local pool of talented white-collar employees and highly skilled industrial workers.”

### **Devens 2014 Annual Report**

(FY14 Project Highlights)

- “Construction [was, as of 2014] well-underway at Bristol-Myers Squibb on an additional 200,000 square feet of laboratory and office space which will create 350 jobs and represent an additional capital investment of \$250 million.”

### **1.5.3 Future**

#### **Devens Economic Advisory Team (DEAT) report - October 2014**

- Devens as a redevelopment project has entered a predictable phase of municipal economics; operating costs should show only marginal increases while revenues from an expanding tax base continue to grow and revenue losses from long-term tax agreements (TIF's) begin to schedule down. As we enter a period of expanding economic growth nationally and within the Commonwealth, look for greater equilibrium between revenues and expenses at Devens.



## 1.6 CULTURAL RESOURCES

### 1.6.1 Past

#### Devens Reuse Plan – 1994

*The 1994 Reuse Plan noted that:*

- “Preliminary field testing for sensitive archaeological resources indicate[d] that approximately 480 acres of the Main Post and 225 acres of the North Post [were] tentatively classified as moderate to high archeological sensitivity depending on results of more definitive investigation. Some of these sites may be eligible for inclusion on the National Register of Historic Places.”

### 1.6.2 Present

#### Freedom’s Way Heritage Landscape Inventory – June 2006

- State and National Registers of Historic Places  
“There [were, as of 2006] four National Register Districts: Vicksburg Square at Fort Devens, Fruitlands, Harvard Center and Shaker Village.”
- APPENDIX: HERITAGE LANDSCAPES IDENTIFIED BY COMMUNITY  
“Devens: Camp Devens was established in 1917 and remained an active military base until 1995 when the area was designated as the Devens Enterprise Zone. Includes natural and historic resources. These include Colonel’s Row (housing), Vicksburg Square (former dormitories), Rogers Field (former parade grounds with viewing stand now used for recreation) and a military cemetery, as well as the Mirror Lakes, part of the Nashua River and a glacially formed esker. Small portions of Devens are in Ayer and Shirley. Traditional boundary makers still exist.”  
  
“Fruitlands Museums: NR district, PR. Private non-profit museum established by Clara Endicott Sears in 1914. Includes five collections: four museum buildings, trails and archaeological sites, a restaurant and a museum store. Also includes dramatic regional views that include the Harvard portion of Devens (Shabikin), Wachusett Mountain, Mount (or Mt.) Monadnock and the Pack Monadnocks, land south and west over the Nashua River.”

### 1.6.3 Future

*No relevant document excerpts found.*

## **1.7 COMMUNITY SERVICES & FACILITIES**

### **1.7.1 Past**

#### **Devens Reuse Plan – November, 1994**

*The 1994 Reuse Plan noted that:*

- “During the 1980's Fort Devens functioned much like a small city with a daytime population exceeding 15,000 people. This level of activity required an infrastructure system similar to that of a small city including water supply, sanitary sewerage, stormwater drainage, electric power, natural gas, and telecommunications. The systems on the Fort [were, as of 1994] generally in good condition and will support substantial reuse.”
- “Major improvements [would] be needed to bring existing systems up to standards necessary to support modern day technology-based company requirements.”
- “A study conducted for the Reuse Plan indicate[d] that the total water resource [was] actually much greater than the safe yield of existing wells, however, the Reuse Plan [did] not anticipate the need to develop new sources for withdrawal beyond 5 mgd, as outlined in the report entitled Water Resources Protection Plan - Vanasse Hangen Brustlin, Inc., 1994”

#### **2001 ENSR – Communities Connected By Water: Ayer, Harvard, Lancaster and Shirley**

*This regional plan, done in 2001, discusses water supply, wastewater, population & housing, open space, and traffic/transportation.*

- “Wastewater in the Town of Harvard [was, as of 2001] treated and disposed of exclusively by means of individual onsite subsurface sewage disposal systems (primarily septic tanks with leaching fields). The Town [had] funded a screening level evaluation of wastewater treatment alternatives for the town center and for the town as a whole (Woodard and Curran, 1997), including possible construction of a new wastewater treatment facility or connection to the Devens WWTF, but found such alternatives to be cost prohibitive and counter to the town's objective of maintaining its historic rural character.”

### **1.7.2 Present**

#### **Harvard Town Center Action Plan – March 2005**

- Summary of Key Recommendations:  
“Find a new home for the Teen Center, now at Devens.”

- 3.0 Harvard Town Center Today

“With the exception of the Highway Department Yard / Transfer Station on Depot Rd. and a Teen Center at Devens, [the] concentration of municipal functions [helped, as of 2005] maintain the Center as the heart of municipal and civic life.”

“The Teen Center [was] leased for a nominal annual fee from MASS Development. However, the building in which it is hosted [could] only remain available for its present use until MASS Development [was] able to find a new development use for it. Therefore, the Parks & Recreation Department [had] been thinking about new locations for the Teen Center should it be asked to leave Devens. Although no site [had] been selected, a site at Town Beach [was] being considered.”

“Many in town [had] expressed a desire for a new community center, perhaps combined with a Teen Center relocated from Devens.”

- 7.0 – Options and Recommendations

“One or two other town facilities now scattered about town – such as the Teen Center at Devens – may best be located in the Center near the schools if a site were made available.”

“Relocate the existing Teen Center, which operates on a tentative tenant-at-will basis at Devens, to the Center. Candidate sites for the Center are either at a new facility at Town Beach as [was] being considered by the Park and Recreation Commission, or, the Bromfield House if the School Department operations and offices there relocate to Bromfield High School.”

- Appendix 2 – Harvard Town Center Today

(A2.1 – A Town-wide Gathering Place of Vitality)

“Most of Harvard’s municipal facilities remain[ed] clustered in or near Town Center. With the exception of the Highway Department Yard / Transfer Station on Depot Rd. and a Teen Center leased from the MASS Development at Devens, that concentration of municipal functions help[ed] maintain the Center as the heart of municipal and civic life.”

## **Water Source Protection Plan – June 2006**

- Water Supply Sources

“The nearest PWS [public water supply] of sufficient size to interconnect with HWD [was, as of 2006] Devens Mass Development (DMD). DMD Wells #01G and #02G are located over two miles to the northwest of the Pond Road wells.”

- Other Water Supply Wells

“The Town shares an interest in protecting groundwater resources with other small local PWSs as well as DMD due to their common withdrawals from Harvard’s aquifers. DEP strongly encourages such partners to work together to promote the development of protective measures that safeguard local drinking water. Consider contacting the other local water systems to discuss possible shared approaches to improving protection.”

- **Corrective Actions & Alternate Water Sources**

“The Town [did not] possess an interconnection with another PWS, and [was] unlikely to develop an interconnection in the near future due to the two-plus mile minimum distance to the nearest community PWS (DMD). Thus, an interconnection [did not, as of 2006] appear to be a reasonable long-term water supply alternative for the Town.”

### **Devens Disposition Executive Board 2006 Reuse Plan (i.e. “Sasaki Plan”)**

*This Plan, which was not approved, noted that:*

- “Devens’ water and sewer infrastructure [had, as of 2006] significant excess capacity. The water supply system [had] a permitted pumping capacity of 4.8 million gallons per day (gpd), but commercial and residential use [in 2006] amount[ed] to only 800,000 gpd. MCI Shirley reserve[d] 500,000 gpd of supply for fire protection purposes.” *[Note: Therefore, 3.5 Mgp/d available capacity as of 2006]*
- Devens’ North Post wastewater treatment plant [had] a capacity of approximately 3.0 million gpd but only treat[ed] approximately 1.0 million gpd. Of this remaining capacity, the Town of Ayer reserve[d] capacity for 800,000 gpd, the Town of Shirley reserve[d] capacity for 300,000 gpd, and MCI Shirley reserve[d] capacity for 600,000 gpd. *[Note: Therefore, 0.3 Mgp/d available capacity as of 2006.]*
- Expansion of the wastewater treatment plan would increase capacity to approximately 4.65 million gpd.” *[Note: Therefore, 1.95 Mgp/d available capacity if expanded.]*

*Note: In 2007, the Devens Wastewater Treatment Facility received a Unified Permit from the Devens Enterprise Commission to upgrade its capacity to 4.65mgd. This upgrade was completed in 2008. Within this upgrade, the plant has 1.95 Mgp/d of available capacity.*

### **From Municipal Building Report – August 2007**

*This document focuses on Hapgood Library, Hildreth House, and Town Hall, all in/around the town center.*

- 6.3 Community Arts Center/Teen Center/Cultural Center

“The Town Center Action Plan of 2005 identified a community priority to protect and encourage the restoration of ‘gathering places’ within town center. Since the relocation of the library to Old Bromfield, located within the public school campus, a gaping hole [had] been created within town center. Several key recommendations derived from extensive public participation in the development of the action plan, documented the desire to create a community arts center, bring the teen center back from Devens and provide a more opportunities for cross sections of the public to encounter one another.”

### **FIAT Report April 2009**

- “Structural savings in the provision of emergency services [were, as of 2009] being pursued on two levels:
  - Regionalization of emergency dispatch services for Harvard, Shirley, and Devens, and
  - Regionalization of all police functions for Harvard, Ayer, Shirley and Devens.”
- “To keep the analysis focused on Harvard’s current and historic situation, the possible impacts of any Devens disposition scenarios were expressly excluded from the [2009] evaluation.”
- “The Town made the decision recently to invest further in its stand-alone transfer station, despite the opportunities for utilizing a regional facility at Devens.”
- “The Superintendent and the School Committee have sought to increase revenue through management of School Choice and contracts with MassDevelopment for a limited number of students residing in Devens. ... Recently [as of 2009], the School Committee entered into an agreement with Devens to educate students at Bromfield. The contract [was] limited in term and [had] resulted in net revenue over the cost of the additional students of \$225,000 per year. [In 2009] a second contract covering Harvard Elementary School (HES) was signed to provide education for grade school students. The most recent estimate for FY10 [was] that these Devens contracts [would] result in approximately \$350,000 in 23 net additional revenue over the cost of the additional students. These programs [had] assisted the Schools in reducing the structural deficit.”

### **Devens Economic Assessment: What Does It Cost To Run Devens? (MRPC) - 2010**

*This document is included under Section 1.7 - Community Services.*

### **Economic Development Analysis Team (EDAT) Final Report – May 2010**

- “EDAT investigated the feasibility and costs of a small and highly localized sewer district using a low-pressure sewer system to connect the three high-potential parcels near Old Mill

Road to the Devens sewer system. Under either of two different implementation proposals, the cost of this low-pressure system [was] estimated at \$1.5M.”

- “38% (of survey respondents) believed that Harvard’s focus for commercial development should be exclusively on Devens.”
- “EDAT explored the options for connecting the targeted development parcels to the Devens sewage treatment system. Noting the close proximity of three of them to each other, the EDAT explored the option of creating a very localized sewer district which connects the three parcels to the existing Devens sewer system.”
- “A key issue that must be explored [was] the potential need for recharge of local aquifers if wastewater flows to the Devens system.”
- “It [was] significant to note that the neighboring towns of Littleton, Boxborough, Ayer, Shirley, Devens, Lancaster, Leominster, Hudson, Clinton, Bolton, and Groton(West) [were] all part of an ETA (Economic Target Area) (see Appendix I). Harvard may end up competing with them for a highly desirable commercial development. [Note reference to neighboring “town” of Devens.]
- “EDIP leadership [had] suggested that Harvard join Shirley, Pepperell, Ayer, and West Groton as part of the Fort Devens ETA. By applying to the Fort Devens ETA, Harvard’s demographics would be aggregated with the other member communities to meet the ETA requirements.”
- “Low pressure sewer system is discussed in Appendix G.”

### **Devens 2010 Annual Report**

- “[Devens] Engineering serves as a municipal engineering department for Devens. Department staff members provide daily professional support to Devens Departments of Public Works, Recreation, Environmental, and Utilities. Additionally, Engineering staff manage consultants and contractors performing road design, demolition design and construction, and architectural design and construction. Engineering manages Devens infrastructure program and geographic information system to provide comprehensive mapping databases, while supporting the Assessor’s Office and the Real Estate and Planning Division with lot plans, maps, and property information.”
- “The Devens Environmental Division assists Real Estate and Planning by providing interested clients with the environmental history of developable sites by making available reports, plans, maps, and photos. The Environmental Division helped eight clients through the due diligence process in FY2010.”

- “Under the direction of the Fire Chief, and the assistance of two Deputy Chiefs, the Devens Fire Department [had] four lieutenants and 14 firefighter/emergency medical technicians who provide[d] 24-hour coverage over four shifts.”
- “The Massachusetts State Police barracks in Devens operate[d] under the command of one lieutenant and [was] staffed by ten troopers, one sergeant, and one part-time administrative assistant.”

**Sample Emergency Call Volumes in Devens (Based on Annual Reports)**

<b>Police Activity (2010)</b>		<b>Fire Calls</b>	
Warnings	714	FY2010	2,112
Violations	51	FY2011	2,221
Arrests	24	FY2012	2,056
Accidents	42	FY2013	2,100
Complaints	15		
Parking Tickets	318		
911 Calls	262		
Alarms	134		
Investigations	107		

**Devens 2011 Annual Report**

- “The Community Center located adjacent to Rogers Field serves as a hub for meetings, socials, and holiday gatherings for Devens residents and other groups.”

**Devens Economic Advisory Team (DEAT) 2012 Annual Report – October 2012**

(Regionalization Status)

- Regional Emergency Dispatch is [as of 2012] nearly complete. Participating towns will see savings starting in July 2012.
- Hazardous Waste Facility [as of 2012] is up and running and supports multiple towns.
- Education of Devens children is provided [as of 2012] by the Harvard Public Schools under a 3-year contract. MassDevelopment retains responsibility for education until disposition; at which point a town (or towns) assume responsibility. Even if the contract is awarded to another town, enrolled Devens students have the right to stay with the Harvard school system until they graduate.

## **Devens Economic Advisory Team (DEAT) 2012 Annual Report – October 2012**

(Devens Utilities)

- MassDevelopment owns all utilities at Devens and runs them using a small, in-house management team. Services include electricity, natural gas, fresh water, waste water, pole and conduit access, and antenna rental sites. The operations and maintenance activities are run by Wellesley Electric (electricity), National Grid (gas), and United Water (water). The utilities serve several hundred residential, business, and government users. We note that the Devens public storm water control system is presently maintained by the Devens DPW, but could be transferred to Devens Utilities in the future.

*Note: The structure of Devens Utilities is unique among utilities in Massachusetts.*

(Devens DPW)

- DPW has no capital budget. DPW contracts out for specialized services such as road crack sealing, road line painting. Capital expenditures such as paving or road work come from Devens funds managed by MassDevelopment, on an item by item basis. MassDevelopment has a three year paving/road work contract that is not included in the Devens DPW budget.

## **Devens 2013 Annual Report**

- “The Nines Festival brought thousands to Devens for music—a cultural complement to the fishing, golfing, hiking, swimming, and other sporting activities that keep the community hopping outside the workday.”
- “The Department of Recreation creates fun and entertaining programs for Devens residents such as movie nights, organized games, and ice cream socials. It also leases fields used for athletic and cultural events to visitors who want to take advantage of our beautiful grounds and open spaces.”
- “The Department of Public Works (DPW) maintains 53 miles of roads and 330 acres of grounds, as well as various recreational, municipal, and leased facilities. Over the past year, DPW completed close to 2,600 work orders.”
- Fire: Responded to 2,100 calls.
- Police: Responded to over 11,000 calls.
- “In FY 2013, Devens Utilities delivered 129 million kilowatt hours of electricity: 1.9 million kilowatt hours of solar power generated on-site by commercial systems and 69,000 kilowatt hours of solar power generated by rooftop panels on eight homes. The Department also delivered 7.1 million therms of natural gas and initiated a meter exchange program.”



### 1.7.3 Future

#### **Devens Economic Advisory Team (DEAT) 2012 Annual Report – October 2012**

(Regionalization Status)

- A three-year Police contract for Devens has just [as of 2012] been negotiated with the State Police, running until mid-2015. Chapter 498 grants Mass Development the power to contract with the Towns, state police or military police to provide police services. We believe both Harvard and Mass Development would benefit from having the Harvard Police cover Devens, and we suggest Harvard aggressively pursue this path.
- The Assessor function [as of 2012] is up and is running with the same processes as the towns. The towns can fairly easily take over this activity if and when they resume their historic boundaries.
- The Public Works and Fire Departments [as of 2012] could provide future regional service. Devens Fire Department offers unique, vital services.

(Devens Department of Public Works)

- Since the DPW is responsible for both redevelopment-related activities as well as the usual public works activities, it is difficult to project their workload and level of staffing onto a strictly municipal operation.

#### **Devens Economic Advisory Team (DEAT) report - October 2014**

- The Devens Economic Analysis Team (DEAT) recommends [as of 2014] that the citizens of Devens, Ayer, Shirley and Harvard petition the General Court of The Commonwealth of Massachusetts (i.e., the state legislature) to convert the existing Utility Department [of Mass Development] that now serves the DREZ into a new public utility, and we further recommend that this new utility assume several functions presently performed by the MassDevelopment Department of Public Works. Specifically, we recommend that the new public utility take responsibility for electricity, natural gas, fresh water, wastewater, storm water (on public lands), and all other activities now performed by the Utility Department.
- Because of existing laws, electric and natural gas utility services provided by MassDevelopment [as of 2014] are limited to the DREZ. The water-related services are not limited to the DREZ. We do not propose to change these restrictions at this time. We hope that once a public utility for the DREZ has gained several years of successful operation, the towns could look into the possibility of expanding the public utility operation into other areas.

## 1.8 CIRCULATION & TRAFFIC

### 1.8.1 Past

#### Devens Reuse Plan – November, 1994

*The 1994 Reuse Plan noted that:*

- “Several measures [would] be considered to reduce potential truck impacts on local roadways and to downtown Ayer and Route 110/111 in Harvard. These include[d] encouraging truck traffic to use Route 2 by providing easy access through improvements to Barnum and Patton Roads. ... Monitoring [would] be performed to assess impacts of these trucks on local streets. Additional measures such as truck restrictions at Barnum Gate [would] be considered if truck impacts on local streets require further mitigation. All new users with significant truck use at Devens [would] be required to file truck routing plans and permits may be issued stipulating truck routes.”
- “Trip generation, trip distribution, and intersection analyses were conducted to assess the traffic impacts of the Reuse Plan. Mitigation has been identified for both on- and off-site transportation impacts. Four major off-site intersections that have been identified as requiring specific mitigation measures to negate the projected impacts include: ...

Route 2A-11 0/1-495 - Signalization and widening at the interchange ramps [would] be necessary as growth occurs and the Reuse Plan is implemented.”

### 1.8.2 Present

#### Devens Disposition Executive Board 2006 Reuse Plan (i.e. “Sasaki Plan”)

*This Plan, which was not approved, noted that:*

- “One of Devens’ greatest advantages is its access to the regional transportation network. North-south and eastwest rail lines connect Devens’ industries to New England, while the commuter rail line to Boston passes through the former North Post and stops in Shirley and Ayer. Devens also has excellent access to regional roadways.”
- “Within Devens the road network reflects the Army’s historic needs for security... The former Main Post has five road connections to surrounding towns.”
- “While valued by the military, the limited number of connections between Devens and the surrounding towns impede circulation [as of 2006] within the site.”

### **Harvard's Roads Inventory – 2007**

- Road Categories: Other Roads

“Route 2 and Route I-495 fall into this category in Harvard. Both are highways with at least two lanes in each direction that are accessible only via entrance and exit ramps. Roads within Devens, the former army installation are also in this “other roads” category. Those in Harvard are accessed only from the town of Ayer via Barnum Road and Sherman Avenue or via Route 2 exit onto Jackson Road in Harvard. While there are roads that have scenic qualities within the bounds of Devens, the jurisdiction varies.

This report ... does not consider [subdivision and other roads] at this time [2007] because the focus of this project is to identify scenic roads with unique character that may be vulnerable to change and that are within the Town of Harvard's ability to guide changes...”

- Old Mill-Blanchard-Lancaster County Roads

“This area is located in the northwestern part of town adjacent to Devens. It is generally [as of 2007] wooded with 20th century residential development (Blanchard Road, Lancaster County Road, Old Mill Road).”

- “Old Mill Road [as of 2007] is a dead-end road west of Ayer Road (Route 110) that runs in a southwesterly direction between Ayer Road and the railroad tracks adjacent to Fort Devens. Here the gates are permanently closed to Fort Devens and a Use Restriction sign at the beginning of the road indicates that Old Mill Road is not a through road to Fort Devens. Old Mill Road is unusually wide at 23' for most of its 1.1 mile length.”

### **Ayer Road Corridor Study Draft – June 2007**

- Section 3.4 – Collision History

“As residents, business owners, and the Harvard Police Department know well, there are a number of traffic, safety problems on Ayer Road north of Route 2 [as of 2007]. These problems include traffic volumes and speed, truck traffic generated by Devens industrial establishments, and conflicts between through traffic, neighborhood traffic, and drivers entering or exiting business establishments in the C District. Ayer Road is the most accident-prone roadway in Harvard and it will remain so until a comprehensive program of transportation improvements is planned and implemented.”

### **Economic Development Analysis Team (EDAT) Final Report – May 2010**

- The EDAT strongly believes that the current [as of 2010] issues of traffic speed, traffic flow, and driver/pedestrian safety need to be addressed independent of any new commercial

development. Efforts should be made to shift the Devens truck traffic away from Ayer Road and over to Jackson Road.

- Non-Harvard commuter and truck traffic between Route 2 and the Ayer traffic circle has [as of 2010] significantly increased. An informal analysis of north-bound truck traffic indicates about half of the trucks (mostly trash trucks) head into Devens, and the other half (mostly 18-wheel tractor-trailer trucks) head toward Littleton/Ayer, with essentially none traveling to Harvard destinations.

### **Devens Traffic Monitoring Program 2012 Biennial Traffic Report – October 2012**

- Average weekday traffic volumes on the surrounding numbered routes (Routes 2, 2A/110, and 110/111) have increased [as of 2012] by 14% since 1996 but are currently decreasing from their peak in 2004 at an average rate of 2.4% per year, indicating that Devens-generated traffic is not significantly affecting volumes on Route 2. Planning studies commonly assume a background growth rate of about 1% per year.
- There are some isolated roadways and intersections that have shown an increase in traffic volumes since 2010, but, overall, this pattern indicates that Devens-generated traffic is not significantly affecting traffic volumes on local roadways.
- The current 4,139,959 square feet of development in 2012 is estimated to generate about 35,900 daily trips. When compared to the actual trips generated counted through Devens gates (15,668); this indicates that Devens development is generating off-site traffic at a rate of 44 percent of that to a comparable development's tripmaking activity.

### **Devens 2014 Annual Report**

- Devens' main thoroughfare, Jackson Road, will be reconstructed in an improved realignment from the Verbeck Gate to Barnum Road allowing for safer two way traffic.

### **1.8.3 Future**

#### **Devens 2014 Annual Report**

- Among the new and forthcoming initiatives and developments at Devens: a “last-mile” commuter shuttle to make it possible for more employees to take the commuter rail to work; new housing opportunities for both homeowners and renters on Grant and Jackson Roads; and programs like bird-watching walks for employees, residents, and visitors to enjoy the outdoors.

## **Ayer Road Corridor Study Draft – June 2007**

- Section 4 – Future Conditions

### 4.2 - Master Plan

The 2002 Master Plan for Harvard identifies Ayer Road north of Route 2 as the designated Commercial District (District C) for the town. According to the Master Plan, goals for Ayer Road include: ...

- Preserve rural character of Harvard
- Plan for a bicycle path system that encourages non-vehicular travel between the Town Center, the Community Commercial District and Devens

### 4.3.1 – Future Traffic Volumes, Background growth

A corridor study in any community surrounding Fort Devens (Devens) would be remiss if the impact of Devens redevelopment were not at least reviewed. According to review of the Devens Traffic Monitoring Program – 2005 – 5 Year Traffic Report, a 1.77 percent per year background growth rate was used for the region. The Devens documents do not explicitly evaluate an increase in traffic along Ayer Road in Harvard between Route 2 and the Harvard-Ayer town line due to the Devens redevelopment. Therefore, since substantial redevelopment of Devens has been ongoing it is anticipated that any increases in traffic due to Devens along Ayer Road would be included in the background growth rate.

## 1.9 RELATIONSHIP WITH HOST TOWNS

### 1.9.1 Past

#### 2001 ENSR – Communities Connected By Water: Ayer, Harvard, Lancaster and Shirley

- The towns of Ayer, Harvard, Lancaster and Shirley are linked by two distinct characteristics: the Nashua River and Devens. Since the closure of Fort Devens in 1995, these towns have [as of 2001] had to contend with an array of local and regional changes. These changes include a dramatic shift in the local and regional labor force, increased traffic volumes and changes in commuting patterns, additional single-family housing construction, skyrocketing real estate values, and increases in the local and regional population as people move to the region for the employment opportunities at Devens. While the jobs created at Devens [as of 2001] have more than replaced those lost as a result of the base closure, the economic growth comes at a cost to many towns within the I-495, Route 2/2A, and Route 110/111 area.

#### 2006 Joint Report (Scenario 2B disposition option) – 2nd Draft, August 2006

*This Report, which was not approved, included the following:*

##### Executive Summary

- This document, and the attached chronology of events, [would have] constitute[d] the joint report of the Devens Enterprise Commission, the boards of selectmen of Ayer, Harvard and Shirley, and the Massachusetts Government Land Bank (now MassDevelopment), called for under Section 23 of Chapter 498 of the Acts of 1993 (the "Act").
- Pursuant to a series of votes amongst the parties conducted in October and November 2006, the parties [would have] recommend[ed] enactment of legislation, filed herewith, to create a new municipality from land within the historic municipal boundaries of Ayer, Harvard and Shirley that currently comprise the Devens Regional Enterprise Zone.
- Excepted from the new municipality [would have been] certain lands within the Enterprise Zone, more remote from the core of Devens and known as "outparcels," that [would have] revert[ed] to the jurisdiction of Ayer, Harvard or Shirley, generally:
  - Land west of the Nashua River to the town of Shirley
  - Land along Barnum Road to the town of Harvard
  - Land north of West Main Street and east of the Nashua River to the town of Ayer
- Under this recommendation, and the proposed legislation, effective July 1, 2010, the new municipality of "Devens" [would have assumed] responsibility for all municipal operations

within its jurisdictional lands as identified elsewhere within the Disposition Package. The government structure for the new town [would have included] an Open Town Meeting legislative branch, and an executive branch composed of a strong Town Manager (or Administrator) appointed by an elected five-member Board of Selectmen.

- Also effective July 1, 2010, the respective municipalities of Ayer, Harvard and Shirley [would have] assume[d] responsibility for all municipal operations within the lands returned to their respective jurisdictions, unless otherwise described in the formal Disposition Package as identified below.

### **October 2006 – Result of vote on creation of Town of Devens**

Harvard:	No	
Ayer:	No	
Shirley:	Yes	Result: Does not pass

## **1.9.2 Present**

### **Town of Shirley Master Plan – 2004**

*Note: Shirley is currently, as of October 2015, revising its Master Plan.*

- Like Ayer, MassDevelopment has [as of 2004] a split tax rate for residential and non-residential taxpayers. Its current tax rates [as of 2004] are \$10.62 for residential and \$14.83 for commercial and industrial property. The residential tax rate at Devens is lower than that of surrounding towns, but compared to almost any municipality in the state, MassDevelopment’s residential service demands are fairly limited because less than half of the 282 dwelling units authorized under the Devens Reuse Plan have been built. The commercial/industrial tax rates in Shirley and Harvard are significantly lower than at Devens, but Shirley has a very limited supply of industrially zoned land and Harvard has none. In contrast, industrial development is the predominant land use at Devens and the compound has established a base of public services geared to meet the needs of a major employment center: public safety and public works.

### **Town of Ayer Comprehensive Plan Update – 2005**

- Even though most of Fort Devens occupied land inside of Harvard, it is undeniable that to the region, the rest of the Commonwealth and to the soldiers and families who lived there, Fort Devens was identified mainly with Ayer.
- The town’s economy yielded to demands for goods and services from a transient population, and Fort Devens also employed many civilians. In fact, the military supplied a key source of

jobs and spending power in a region that had fairly limited economic opportunities by the mid-1950s.

- Like Harvard and Shirley, Ayer adopted an Interim Planning Overlay District (IPOD) for its land at the former Fort Devens in 1992.

(Economic Development Goals)

- Better coordinate Ayer residents' skills to existing and future employment at the Devens Regional Enterprise Zone and within Ayer.
- Strengthen economic development coordination with the Devens Regional Enterprise Zone and the surrounding region.
- Market downtown Ayer as a browser tourism shopping destination to MBTA riders, rail trail users and Devens Regional Enterprise Zone employees through advertisements in newsletters, on trains, at rail trail parking lot, commuter rail station and on MBTA schedules. Install directional signage from station, rail trail and Devens Regional Enterprise Zone to downtown Ayer.

(Economic Development Recommendations)

- Increase economic coordination with the Devens Regional Enterprise Zone and other communities in the region.
- Organize regular meetings between Ayer economic development team, MRPC, and MassDevelopment (or its successor).
- Increase economic ties between Devens Regional Enterprise Zone employees and employers and Ayer businesses.
- Provide regular and intensive involvement of Ayer officials, residents, businesses, and environmental organizations in planning for reuse of the North Post.
- Increase economic coordination with the Devens Regional Enterprise Zone and other communities in the region.
- Organize regular meetings between Ayer economic development team, MRPC, and MassDevelopment (or its successor).
- Increase economic ties between Devens Regional Enterprise Zone employees and employers and Ayer businesses.
- Provide regular and intensive involvement of Ayer officials, residents, businesses, and environmental organizations in planning for reuse of the North Post.



(Community Facilities and Services - Devens)

- MassDevelopment provides a number of public facilities and services for residents and businesses located within the Devens Regional Enterprise Zone and the surrounding towns.

- Public Safety

MassDevelopment [as of 2005] contracts with the Massachusetts State Police to provide public safety and patrol. The Devens unit includes one lieutenant, two sergeants, and ten troopers headquartered at 59 Buena Vista Street. MassDevelopment supervises the Devens Fire Department, which employs 23 firefighters located at 104 MacArthur Avenue. Equipment includes two engines, one ladder truck, one rescue vehicle, and two forestry units. A public safety complex for police, fire and rescue is in a pre-development process and should be built within 10 years.

- Public Works

The Devens Department of Public Works (DPW) [as of 2005] employs 17 people, who are housed in a new public works building that opened in 2003 at 99 Buena Vista Street. They are responsible for maintaining 53 miles of roads, animal control, grounds and landscaping, and for leased and vacant buildings owned by MassDevelopment. Devens Regional Enterprise Zone residents take their solid waste to transfer stations in Ayer or Harvard. The U.S. Army transferred utility infrastructure to MassDevelopment in 1996. The Devens Utility Department provides electricity, natural gas, water and sewer services (approximately 68 miles of power transmission line, 30 miles of gas line, 50 miles of water and sewer line, 3 electrical substations, 4 wells, 6 sewer lift pumps and a wastewater treatment facility) and sets the utility rates.

Earth Tech [as of 2005] is contracted to operate and manage the public water supply at the Devens Regional Enterprise Zone. There are four groundwater wells - 3 gravel packed wells: Patton, Shabokin and MacPherson, and a well field located at the Grove Pond pump station. Water from these sources is treated for iron and manganese. There [was] a capacity [as of 2005] of 5 million gpd, but average water use [as of 2005 was] 1.5 million gpd. Two 1 million gallon storage tanks and 50 miles of water mains are located at the Devens Regional Enterprise Zone. Earth Tech also manages the new wastewater treatment facility located at the North Post. It is permitted to treat 3 million gpd.

- Education, Recreation & Culture.

MassDevelopment has established the Devens School District (sic) [*note – Devens is not an official school district*], but currently Devens Regional Enterprise Zone school children in grades K-8 attend classes at the Shirley Public Schools and high school students attend Ayer High School.

The Devens Recreation Department is located at Washington Hall, 101 Sherman Street ... There are 1,400 acres of open space and recreation land in the Devens Regional Enterprise Zone. Recreation facilities at the former Fort Devens include: 44 acres of fields at Rogers

Field on Buena Vista Road; one multi-use field and three softball fields at Willard Park on Sherman Avenue; three practice fields and a regulation field at Antietam Fields on Antietam Street; swimming, fishing and canoeing at Mirror Lake; four tennis courts, a basketball court and two handball courts at the Queenstown Tennis Courts on Quebec Street; 600 acres of hiking trails through conservation land; an 18-hole golf course; and the Devens Fitness and Wellness Center on Charlestown Street. Since the Devens Regional Enterprise Zone does not have a library or a senior center, residents use facilities in Ayer, Harvard and Shirley.

- Some [in Ayer, as of 2005] are bothered that the Devens Regional Enterprise Zone truck access network includes Ayer roadways.

### 1.9.3 Future

#### Freedom's Way Heritage Landscape Inventory – June 2006

(Critical Concerns: Devens)

- A substantial area in the northwest corner of Harvard became Fort Devens in 1917 and was administered by the US government for many years until the fort was decommissioned in 1996. The former Fort Devens, which is located in Ayer, Lancaster and Shirley as well as Harvard, is now administered by the Devens Enterprise Commission. Devens poses a challenge for the Harvard *because it was historically part of the community but has always been set apart with much of the area inaccessible to Harvard residents until recently.* Each of the communities will soon be voting about future jurisdiction of the Devens area. (emphasis added)

#### Devens Disposition Success Criteria – Revised to 12/03/08

*An earlier version of this document was adopted on May3, 2005. It was later updated by the Finance Committee to include public comments from a September 20, 2007 Public Hearing.*

- The Harvard Board of Selectmen has developed Success Criteria for the disposition of lands within the Devens Regional Enterprise Zone (DREZ). This document identifies these criteria.
- At this point in time no single disposition option has been agreed upon or is favored by the Board of Selectmen. However, it is certain that the eventual disposition will take one of the following forms.
  1. The town of Harvard will acquire jurisdiction over the entire Enterprise Zone or at least reversion to our historic municipal boundaries.
  2. The town of Harvard will acquire jurisdiction over a portion of the Enterprise Zone.

3. The town of Harvard would not acquire jurisdiction over any part of the Enterprise Zone.
- Attached are these Success Criteria, which may or may not be applicable depending on the eventual option proposed.
  - COMMUNITY
    1. Any option must clearly state the impact of that option and also define a vision of what Harvard will look like after transition. All potential changes required in Harvard's town government should be identified as applicable to each option.
    2. The integrity of the Devens community/village shall be maintained Existing Structures and residential neighborhoods must not be split between municipal jurisdictions.
    3. Interior roads should be established or re-established that will rejoin Harvard and Devens residential and recreational areas.
    4. Pathways and bikeways should be established that rejoin Harvard and Devens residential and recreational areas.
    5. The current housing cap of 282 units may be modified to allow further growth in housing units in accordance with an integrated growth plan.
  - ECONOMIC
    1. The addition of any part of Devens must not adversely impact Harvard's finances. There needs to be a thorough understanding of actual economic risks, including those due to possible variations to the expected outcomes. The effect of a possible split tax rate on Harvard's businesses must also be considered.
    2. Any transfer of jurisdiction shall be staged so as to ensure that expected revenues keep pace with projected expenses, capital plan costs and delivery of public services for land within the DREZ on an annual basis.
    3. Any requirements to acquire existing or additional public infrastructure (schools, roads, administrative offices, DPW, Emergency services recreational facilities etc.) must be clearly identified along with a funding source that would support these requirements.
    4. At completion of transition there shall be adequate provision for capitalization and stabilization funds.

5. A detailed plan for the disposition of all land, equipment, infrastructure and revenues related to the delivery of all Utilities within the DREZ shall be prepared by Mass Development and provide mutual benefit to the host communities.

- EDUCATIONAL

1. The quality of education in Harvard must be maintained. Provision shall be made to address additional school requirements based upon a range of expected new housing.
2. Location(s) for additional school facilities and their funding source(s) must be identified.
3. Reimbursement levels and financial support for any expansion of Harvard's educational facilities resulting from disposition shall be made legally binding with the state through chapter 70 funding or other sources.

- ENVIRONMENTAL

1. Harvard shall be indemnified from any liabilities from existing contaminated areas at transition and shall not assume jurisdiction over any state or federal parcels identified as contaminated. Responsible parties for all contaminated sites must be identified, including the level of cleanup required along with a timetable for their remediation.
2. Harvard shall have access to a specified amount of wastewater treatment capacity from the Devens Wastewater treatment facility to service the current Commercial 'C' District located on Ayer Road.
3. Harvard shall have access to a specified amount of potable water from wells on Devens for future drinking water needs. Provision shall be in place to ensure adequate protection of both the quality and quantity of water available from the Devens aquifer.
4. Provision for the protection of open space and recreational areas shall be followed in accordance with the 2008 Devens Open Space and Recreation Plan.

- ADMINISTRATIVE/TRANSITIONAL

1. MassDevelopment shall conduct all administrative services required and provide all data and materials in its possession necessary prepare for and effect a transition to permanent governance for land within the DREZ.
2. A timetable and detailed transition plan for transfer of jurisdiction must be in place that defines the level of municipal services to be provided within the DREZ and identifies specific responsibilities for delivery of all municipal services, financing of operations, taxation and all regulatory/permitting requirements.

3. Define and establish separate Fire Districts to service separate Harvard and Devens needs.
4. Water and Sewer Districts established to service existing areas.
5. A clearly defined adjustment period for compliance with Chapter 40B must be granted by the state to Harvard to allow for the successful re-integration of the undeveloped land within the DREZ and prevent the adverse effects of uncontrolled and inappropriate housing development. This is necessary to take into consideration the magnitude of changes required to gain jurisdiction over Devens, possible loss of existing affordable units on Devens and loss of land on which affordable housing can be economically built.

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**APPENDIX A : GLOSSARY OF TERMS AND ACRONYMS**

## Glossary of Terms and Acronyms

Act	Chapter 498 of the Acts of 1993
DEC	Devens Enterprise Commission
District C	Commercial District (or “C District”)
DPW	Department of Public Works
DEAT	Devens Economic Advisory Team
DPW	Department of Public Works
DREZ	Devens Regional Enterprise Zone
EDAT	Economic Development Analysis Team
FIAT	Fiscal Impact Analysis Team
HES	Harvard Elementary School
HPS	Harvard Public Schools
IPOD	Interim Planning Overlay District
JBOS	Joint Boards of Selectmen
MPSC	Master Plan Steering Committee
NHESP	Natural Heritage and Endangered Species Program
NRWA	Nashua River Watershed Association
PWS	Public Water Supply
USEPA	U.S. Environment Protection Agency
WWTF	Wastewater Treatment Facility





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**APPENDIX 2:**  
**MASTER PLAN ELEMENTS REVIEW**







# Master Plan Elements Review

Town of Harvard, MA

Town of Harvard Master Plan - Devens Impact Evaluation

October 15, 2015





# **Master Plan Elements Review**

prepared for

**Town of Harvard, MA  
Town of Harvard Master Plan - Devens Impact Evaluation**

**October 15, 2015**

prepared by

**Burns & McDonnell, Inc.**

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## 1.1 INTRODUCTION

As part of a Devens Impact Evaluation for the Town of Harvard, Massachusetts' Master Plan Steering (MPSC) Committee, Burns & McDonnell has reviewed a draft of the Master Plan (Phase II) document and other associated references. Results of this review are contained within this report.

For each Element (or Chapter) of the Master Plan, general observations are provided, sections are rated for the current level of discussion pertaining to Devens (Low, Medium, or High), and recommended levels of discussion are recommended for both "Harvard Governance" and "Governance by Others" scenarios following Devens disposition. Also, Devens-related "considerations" from a presentation entitled "Harvard & Devens – A Tale of Many Futures" are listed and rated for their current level of discussion within the various chapters.

The assessment process used for this review will assist in providing recommendations for chapter edits so that Devens is comprehensively addressed by the MPSC's current Master Plan efforts and so that the Town of Harvard can set appropriate Devens-related goals.

## 1.2 CHAPTER 2: LAND USE

Observations based on the current draft:

1. The contents of this Chapter, as with many chapters, appear to focus mostly on Residential Harvard. Devens presents an opportunity to diversify Harvard's housing stock in terms of both density and type (e.g. age, Chapter 40B/income, etc.) It also provides additional location options for the siting of such housing.
2. The relatively walkable space that exists within the Town Center also exists (to a somewhat lesser degree) within Devens' center.
3. Both a preference for large-lot residential and more dense residential within Devens can be accommodated within the Master Plan.
4. Devens could provide significant increases in both industrial and commercial land uses to Harvard, relieving pressure for such uses within the existing C District.
5. The "Impact of Roads" section does not discuss the impacts of road closures done by the U.S. Army. This is significant to Harvard's development and traffic patterns. (Issue is also not discussed in Chapter 8).
6. The viability of Devens as a village, somewhat loosely analogous to Town Center and Still River, is not discussed within this or other chapters.
7. Civic facilities (past or present) within Devens, such as churches, are not discussed.
8. Zoning implications of Devens are not currently discussed. Direct governance of Devens would require substantial changes to Harvard's zoning structure and its regulation/administration, and would be a sharp change from the previous approach to both commercial and industrial zones. Items such as building height restrictions would likely require review and revision.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Harvard Trends	M	M	M
2. Town Form	L	M	L
3. Land Use Patterns	L	H	M
4. Zoning in Harvard	-	H	M
5. Planning, Zoning, and Permitting Capacity	L	M	L

Devens Consideration	Level of Discussion in Current Draft	Additional Discussion Recommended?
a. What should Harvard do to increase its planning, zoning, and permitting capacity? (This is an issue regardless of Devens.)	L	Y
b. If Harvard resumes jurisdiction at Devens, there will be opportunities to address needs that exist in the C District. How should the town approach this, given that addressing the C District’s needs will probably require more development on Ayer Road?	-	Y
c. Does the existing Reuse Plan (and zoning) reflect Harvard’s vision for its land at Devens?	-	Y
d. Harvard is a very-low-density residential town. By contrast, in areas zoned for growth, Devens is far more intensively developed, and most of the growth there is nonresidential. Is there an irreconcilable “culture clash” between Residential Harvard and Devens?	L	Y
e. Aside from being convinced that Devens can generate a revenue surplus someday, what “deal breaker” conditions must Devens meet in order to win public acceptance in Harvard?	-	Y

### 1.3 CHAPTER 3: NATURAL RESOURCES & OPEN SPACE

Observations based on the current draft:

1. The contents of this Chapter focus on natural resources and open space within Residential Harvard, with only brief mention of Devens.
2. The existing Devens open space plan could be easily folded into this chapter. This could be easily accomplished through either a point-by-point format, or a Residential Harvard - then Devens – format.
3. It could be worthwhile to include information from the Devens open space plan regardless of the disposition outcome, as many of the discussed resources, such as the Nashua River, have regional importance from both protection/conservation and stewardship perspectives.
4. The statement that that large-lot zoning has helped to protect the water quality should be reviewed.
5. Consideration should be given to the potential for governance of Devens to afford additional protections for natural resources and open space.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Harvard’s Landscapes	L	M	L
2. Water Resources	L	M	L
3. Areas of Ecological Significance	L	M	L
4. Open Space	L	H	L



Consideration	Level of Discussion in Current Draft	Additional Discussion Recommended?
<i>Open Space</i>		
a. Access to Devens recreation facilities	-	Y
b. Management of recreation facilities, in Harvard and Devens	L	Y
c. Do Devens employees use existing recreation facilities? What are their needs?	-	Y
d. Does Harvard have the resources it needs to be good stewards of its existing conservation land?	L	Y
e. Does Harvard have the resources it needs to be good stewards of its existing conservation land AND an additional 1,100 acres at Devens?	-	Y
f. How would jurisdiction affect the Town's open space and recreation planning? What would be different?	L	Y
g. Devens has significant recreation facilities. Does Harvard have capacity to maintain them?	-	Y
<i>Natural Resources</i>		
h. How would responsibility for Devens affect the goals and policies of the Conservation Commission, Board of Health, and Planning Board?	-	Y
i. Access to the water and wastewater systems at Devens could benefit Harvard, but are there drawbacks, too?	-	Y

## 1.4 CHAPTER 4: POPULATION & HOUSING

Observations based on the current draft:

1. The contents of this Chapter primarily discuss Residential Harvard, but there is discussion of the Devens implications on housing – both existing and potential.
2. The chapter, as-is presents Devens as significantly more diverse (demographically) than Residential Harvard.
3. Additional study on the housing implications of Harvard is still needed as part of this project. The issue is discussed, in part, within the draft BMCD Economic and Fiscal Impacts Report.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Population and Household Trends	M	H	M
2. Housing Characteristics	M	H	M
3. Housing Market	-	M	M
4. Housing Affordability	M	H	H

Consideration	Level of Discussion in Current Draft	Recommended
a. Under existing development rules, Devens would have <7% of households on 20% of Town’s total area. Is this acceptable or not?	-	Y
b. How will Harvard address its existing housing needs?	L	Y
c. Geographic distribution of households, impact on sense of community (Harvard “culture”)	L	Y

d. Aside from schools, where/how delivery of municipal services (cost, convenience for all residents)	L	Y
e. What about zoning for more housing at Devens, where infrastructure exists to support higher-density development?	L	Y
f. Is Harvard’s residential development pattern sustainable?	-	Y
g. Is access to “construction ready” land at Devens an opportunity to provide for better variety of housing –and if so, what does Harvard gain/lose without Devens?	L	Y
<i>From Master Plan Phase I</i>		
Residents suggested that a regional housing strategy might be effective and should be investigated.	-	Y
Devens not be seen as a place just for elders and the less wealthy. If Harvard is to resume governance of some portion of Devens, that portion needs to be fully integrated into the community.	-	Y
Harvard cannot count on Devens to be the solution for all affordable housing in town.	L	Y

## 1.5 CHAPTER 5: HARVARD’S ECONOMY

Observations based on the current draft:

1. Devens is only lightly addressed (directly) within the current draft of this chapter.
2. Devens should be discussed much more within this chapter as it weighs heavily in the region’s economy and will have an impact on Harvard’s economy regardless of disposition outcome.
3. Please refer to the draft BMcD Economic and Fiscal Impacts Report for a discussion of items related to this chapter.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Labor Force	L	M	L
2. Employment Base	-	M	L
3. Goods & Services	-	H	M
4. Ayer Road Commercial District	L	L	L
5. Agriculture and Tourism	-	L	L
6. Economic Development Agenda	L	H	M

Consideration	Level of Discussion in Current Draft	Additional Discussion Recommended?
a. How will Harvard improve conditions on Ayer Road, regardless of Devens?	M	Y
b. What are Harvard’s economic development policies today? What should they be?	M	Y
c. Who is responsible for economic development planning and policy in Harvard? How would resuming jurisdiction at Devens affect the existing economic development framework?	L	Y

d. What do the businesses want from local government, and is Harvard prepared to accommodate them?	-	Y
e. Does Harvard want the professional, centralized, “business-friendly” government that large companies expect?	M	Y
f. Business relocations after TIFs expire is very common in Massachusetts. How will Harvard respond to over-time fluctuations in occupancy and the business mix (and revenue) at Devens?	-	Y
g. Devens has a large amount of taxable property –and tax-exempt property, too.	-	Y
h. Will more Devens employees want to live in Harvard, and how will Harvard accommodate them?	-	Y
i. Employment and population at Devens could create more demand for housing and commercial/retail services in Harvard. How will Harvard accommodate this demand?	L	Y
<i>“Anticipated levels of taxation for commercial and industrial properties on Devens must be competitive with regional norms and not adversely impact the viability of commercial and industrial activities in Harvard or the surrounding towns ...”</i>		
j. How would this be determined?	-	Y
k. What can Harvard do to bolster the competitiveness of its existing business base?	-	Y

## 1.6 CHAPTER 6: CULTURAL RESOURCES

Observations based on the current draft:

1. This chapter discusses cultural resources within Devens somewhat on par with Residential Harvard. There is room for an expanded discussion of Devens history within the chapter, or an appendix more fully describing this history could be added to the Master Plan.
2. There is no mention within this chapter (or within the Master Plan) of the pre-Devens period, when Devens was a full part of Harvard.
3. Have roads within Devens been examined for potential “eligibility” as scenic roads, and are there areas that might qualify as heritage landscapes?
4. If Harvard had full governance of Devens, would there be an interest in pursuing the listing of additional sites on the SRHP or NRHP, or obtaining other historic protection?

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Inventory of Historic Resources	M	M	M
2. Local Regulations and Policies	L	M	L

Consideration	Level of Discussion in Current Draft	Additional Discussion Recommended?
a. Does Harvard have adequate local capacity to take on protection and stewardship of historic resources at Devens?	-	Y
b. How will Harvard address its existing, unmet historic preservation needs?	L	Y
c. What steps would Harvard take to protect Vicksburg Square?	-	Y

## 1.7 CHAPTER 7: COMMUNITY SERVICES & FACILITIES

Observations based on the current draft:

1. There is very little mention of Devens within the current draft of this chapter except within the context of public schools (which is of course important).
2. Devens-related information pertaining to this chapter is also discussed within the draft BMcD Economic and Fiscal Impacts Report.
3. Harvard governance of Devens could greatly challenge the town to continue with its current government structure and staffing levels.
4. Regionalization efforts, with the recent shared emergency dispatch center as a model, could significantly assist with maintaining Harvard's current structure and also assist with associated costs.
5. As part of the next-steps in this project, a detailed look at professional staff levels within comparable towns will be helpful in making recommendations.
6. Tie-in of sewer and water utilities to Devens' existing systems should be given additional consideration. Tie-in of one or both could provide Harvard with significantly more "freeboard" in future development options and with sustainability of the town's current development patterns.
7. Opportunities exist for Devens to potentially assist in relieving the capital facility projects listed in Table 7.1
8. The potential for use of Devens' existing athletic facilities for Harvard use and as a revenue source (through regional athletic events) is not discussed. Other similar facilities could also be possible.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Municipal Services	L	H	L
2. Municipal Facilities	-	H	L
3. Harvard Public Schools	H	H	M
4. Parks and Playgrounds	-	M	L
5. Municipal Building Needs	-	M	-

Consideration	Level of Discussion in Current Draft	Additional Discussion Recommended?
a. What changes in form/structure of government would Harvard need to institute if it reclaimed jurisdiction at Devens. Many changes? No changes?	L	Y
b. Town officials report many communication problems today. What does Harvard need to do to improve internal communications (with or without Devens)?	-	Y
c. How do Devens residents access community services that MassDevelopment does not provide? (Example: senior citizen services)	L	Y
d. Harvard has very small town departments. How would Harvard manage all of the annual/more frequent inspections, licensing, etc., associated with uses at Devens?	L	Y
e. Should there be a neighborhood school at Devens?	-	Y
f. Could Devens be a catalyst for more regionalization of services in Harvard’s area? Would residents support more regionalization?	L	Y



<i>From Master Plan Phase I</i>		
g. Fifty-six Devens residents are enrolled in the Harvard Public Schools. (Public schools are currently experiencing declining enrollments, but swings have been seen in the past.)	M	N
h. Plans for new residential units at Devens could result in 100 to 125 more children over the next ten years.	M	Y
i. Consider expansion of shared services to assist with service needs of Devens, using shared emergency dispatch as a model. Potential Shared services are summarized in the Master Plan Phase I.		

## 1.8 CHAPTER 8: CIRCULATION & TRAFFIC

Observations based on the current draft:

1. There is very little discussion of Devens and its implications to Harvard within this chapter – the focus is on Residential Harvard.
2. A slightly more zoomed-out view of traffic patterns of both Harvard and Devens (together with the applicable portions of Ayer and Shirley) would be beneficial in setting traffic-related goals.
3. As mentioned for Chapter 2, the closure of roads between Residential Harvard and Fort Devens, and the trickle-down to current traffic patterns, is not discussed within this chapter.
4. Similarly, discussion of options to improve multi-modal transit between Residential Harvard and Devens is not discussed and is an opportunity.
5. Additional discussion of potential strategies to discourage, but not prohibit, truck use on Ayer Road could be of value.
6. None of the transportation projects listed in Table 8.5 have a Devens aspect.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Road Network	L	M	L
2. Public Transportation	-	M	L
3. Pedestrian Network	-	M	-
4. Bicycle Network	-	M	L
5. Transportation Improvements	-	M	L

Consideration	Level of Discussion in Current Draft	Additional Discussion Recommended?
a. Interior road connection between Harvard and Devens: necessary? Feasible?	-	Y
b. Trails and bikeways between Harvard and Devens neighborhoods and recreation facilities?	-	Y
c. Should there be a train station at Devens, since Devens has enough land to support adequate commuter parking? (Even if locating a train station there meant relocating the Ayer or Shirley stations.)	-	Y
<i>From Master Plan Phase I</i>		
d. Affinity with Devens; reopen closed (internal) roads into Devens (Old Mill Rd and Depot Rd); investigate using “tank road” in Oxbow NWR as public road to connect Still River Village area with Devens	-	Y

## 1.9 CHAPTER 9: DEVENS

Observations based on the current draft:

1. The existing text for this chapter on Devens provides a good base for understanding Devens’ history and the issues connected to its post-closure redevelopment.
2. Additional analysis and discussion of the pros and cons of dispositions options are appropriate for inclusion within this chapter.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
CHAPTER 9: DEVENS	H	H	H

## 1.10 CHAPTER 10: OPPORTUNITIES & CHALLENGES

Observations based on the current draft:

1. Opportunities and challenges directly related to Devens are prominent within this chapter’s draft. Devens-related implications on other key planning issues are not yet quite as well developed.

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
1. Vision & Goals			
2. Key Planning Issues			
i. Devens	H	H	H
ii. Ayer Road Commercial District	L	M	L
iii. Housing	L	H	L
iv. Town Center	-	L	-
v. Conservation	-	M	L
3. Recommendations			
i. Land Use	L	M	L
ii. Housing	M	H	M
iii. Economic Development	H	H	H
iv. Natural Resources & Open Space	-	M	L
v. Cultural Resources	-	L	-
vi. Transportation	H	H	H
vii. Public Services & Facilities	M	H	M

**1.11 APPENDIX 1: DEVELOPMENT SUITABILITY**

Draft Master Plan Section	Level of Devens Discussion Within Text (Low – Medium – High)		
	Current Draft	Recommended	
		Harvard Governance	Governance by Others
Appendix 1 Development Suitability	-	L	-

## 1.12 ADDITIONAL DEVENS ITEMS

Additional items noted within the Master Plan Phase I that directly relate to Devens are listed below. These are not currently well-addressed within the Master Plan (Phase II) draft. Results of the public involvement portion of the Phase I process have not yet been fully reviewed.

Item	Level of Discussion in Current Draft	Additional Discussion Recommended?
<b>2011 Master Plan Phase I Goals</b>		
a. Collaborate with Devens’ stakeholders, including Ayer, Shirley, and MassDevelopment	-	Y
b. Decide on Harvard’s role in governance of Devens	-	N
c. Be engaged and informed participants in planning for Devens’ development and governance.	L	Y
d. Set a timeline for determining Harvard’s preferred direction with respect to local governance of Devens.	L	Y
e. Understand the full scale of potential benefits and liabilities related to governance decisions.	L	Y
f. Ensure decision on local governance results in a positive outcome for Harvard and other stakeholders, including the Commonwealth, the region, and our neighbor towns.	L	Y
g. Keep Devens’ neighborhoods intact.	L	Y
h. Consider Potential Benefits and Risks by Government Structure (Phase I Figure 4)	L	Y

### **1.13 MASTER PLAN PHASE I GOALS AND STRATEGIES/NEXT STEPS**

The April 2012 Town of Harvard Master Plan, Phase I: Vision and Goals itemizes both Goals and Strategies/Next Steps for four topic areas: Ayer Road Commercial District, Housing, Town Center, and Conservation. As these topic areas do not correlate 1:1 with the Element sections within the structure of the Master Plan's Phase II, the items are included below, rather than in the preceding Element-based sections. Each item has been rated (yes / no / maybe) as to the potential for a Devens tie-in. "Yes" indicates that Devens, under a unified Harvard-Devens scenario, could assist with achieving a stated goal or should be considered in the strategy/next step process.



<b>Master Plan Phase I: Ayer Road Commercial District Goals</b>	<b>Potential Devens Tie-In</b>
Diversify Harvard’s economy and tax base with an appropriate mix of residential and commercial development in the Commercial District.	Yes
Work with existing and new businesses to attract commercial services that fit the town.	Yes in general, but No/Maybe specific to Ayer Road.
Decrease barriers and increase incentives for attracting new business.	Yes
Work with adjacent neighborhoods, town residents, and other stakeholders to facilitate planning and coordination prior to any permitting processes.	No
Understand the relationship between economic development of the C-District and Devens, in terms of various factors such as transportation and circulation, conservation, and housing.	Yes

<b>Master Plan Phase I: Ayer Road Commercial District Strategies / Next Steps</b>	<b>Potential Devens Tie-In</b>
<p>Conduct a comprehensive analysis of the commercial district to determine the potential benefits and liabilities that could result from various levels of development. The analysis should consider impacts to tax revenues, housing, open space, service, community character and quality of life.</p>	<p>No (if analysis limited to Ayer Road).</p>
<p>Continue to attract commercial development on a property- by-property basis under existing zoning – modify zoning to include design standards that address community character, public realm, and connectivity.</p>	<p>No</p>
<p>Promote village style cluster development that includes a mix of uses – focus on working collectively with property owners in strategic areas.</p>	<p>No</p>
<p>Consider opportunities for infill development – working with existing commercial property owners to expand or modify development.</p>	<p>No</p>

<b>Master Plan Phase I: Housing Goals</b>	<b>Potential Devens Tie-In</b>
Increase the diversity of housing types in Harvard to meet the needs of a greater variety of households.	Yes
Ensure that new housing is harmonious with the character of the community.	Yes (within Devens)
Provide a greater variety of housing throughout Harvard.	Yes
Be proactive in meeting the state’s affordable housing goals.	Yes

<b>Master Plan Phase I: Housing Strategies / Next Steps</b>	<b>Potential Devens Tie-In</b>
Relax the current minimum lot size (1.5 acres plus 0.5 acre for each accessory unit) for additional accessory units.	No
Amend bylaws as appropriate to allow a greater diversity of housing – possible options: <ul style="list-style-type: none"> <li>• Allow conversions on a greater number of parcels (e.g. convert single family into two units).</li> <li>• Allow conversions on a greater number of parcels (e.g. convert single family into two units).</li> <li>• Allow greater diversity in Planned Residential Developments, including single family attached, two-family and multi-family.</li> <li>• Relax the current minimum lot size (1.5 acres plus 0.5 acre for each accessory unit) for additional accessory units.</li> <li>• Allow development of nonconforming lots by special permit.</li> <li>• Develop incentives to encourage limited development on current open space/forested lands (clustered residential or multi-family).</li> <li>• Rezone lands in Town Center and Still River (other areas as appropriate) to allow multi-family units (smaller lots, reduced setbacks and frontages) consistent with historic village settlement patterns.</li> <li>• Develop guidelines for buildings that may result in less demand for septic (low-flow faucets, composting toilets).</li> </ul>	No (assuming changes apply to zoning in Residential Harvard only)
Create design guidelines and site standards for multifamily housing.	No
Create zoning and design standards that ensure new housing is indistinguishable from established housing.	No
Identify sites appropriate for multi-family housing and for mixed use development that includes housing.	No
Create policies, regulations and guidelines that encourage non-vehicular connectivity between housing units and between neighborhoods.	Yes
Develop plans (be proactive) to deal with land coming out of Chapter 61.	No
Obtain information from similar communities to inform Harvard about affordable housing successes and failures.	Yes
Consider opportunities for housing created in Devens.	Yes
Consider guidelines that would encourage zero net energy buildings (zero net energy consumption and zero carbon emissions annually).	Yes

<b>Master Plan Phase I: Town Center Goals</b>	<b>Potential Devens Tie-In</b>
Emphasize Town Center’s role as the central community gathering place.	No
Accommodate land uses that meet different needs of the community across different time scales.	No
Integrate the natural landscape with the historic beauty and viewsheds of the Town Center.	No
Provide safe, convenient and attractive circulation choices for pedestrians that reduce parking demands.	No
Maintain and enhance public buildings for cultural and community uses.	No
Protect and optimize multi-family and rental properties to provide diverse housing options.	No

<b>Master Plan Phase I: Town Center Strategies / Next Steps</b>	<b>Potential Devens Tie-In</b>
Develop a comprehensive landscape and circulation plan to guide decision making related to infrastructure and public facility improvements.	No
Create paths along road shoulders and the Common to link adjacent neighborhoods to the Town Center and provide pedestrian access to and from the several parking areas throughout the Town Center.	No
Consider the benefits and limitations of establishing a mixed use village overlay district that will allow the continuation of small village-scale businesses.	No
Design zoning that is compatible with the existing compact village settlement pattern that supports a variety of housing types and the creation of accessory apartments.	No

<b>Master Plan Phase I: Conservation Goals</b>	<b>Potential Devens Tie-In</b>
Conserve natural, historic and cultural resources.	Yes
Preserve the town’s defining landscapes that are valued by Harvard’s residents and reflective of the rural heritage.	Yes
Protect local watersheds.	Yes
Protect Harvard’s agricultural base.	No
Preserve historic structures and locations.	Yes

<b>Master Plan Phase I: Conservation Strategies / Next Steps</b>	<b>Potential Devens Tie-In</b>
Identify components of rural character.	Maybe (viewsheds)
Improve coordination of boards and committees responsible for land management.	Yes
Educate landowners on sound stewardship practices, for example: <ul style="list-style-type: none"> <li>• Control invasive species.</li> <li>• Control tree diseases and plan for new trees to replace aging and unhealthy trees.</li> <li>• Adopt low impact development management strategies.</li> </ul>	Yes
Inventory cultural and historical landscapes.	Yes
Develop tools and programs to support continuing local agriculture.	No







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**APPENDIX 3:**  
**ECONOMIC AND FINANCIAL FINDINGS**





# Economic and Financial Findings

**Town of Harvard, MA**

**Town of Harvard Master Plan - Devens Impact Evaluation**

**Final Document  
11/20/2015**





# **Economic and Financial Findings**

prepared for

**Town of Harvard, MA**  
**Town of Harvard Master Plan - Devens Impact Evaluation**

11/20/2015

prepared by

**Burns & McDonnell, Inc.**

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**LIST OF ABBREVIATIONS**

<b><u>Abbreviation</u></b>	<b><u>Term/Phrase/Name</u></b>
AMI	Area Median Income
BMcD	Burns & McDonnell
BMS	Bristol-Myers Squibb
BRAC	Base Realignment and Closure
CIP	Commercial and Industrial Property
DREZ	Devens Regional Enterprise Zone
FIAT	Fiscal Impact Analysis Team
TIF	Tax Increment Finance

## 1.0 EXECUTIVE SUMMARY

BMcD was retained by the Town of Harvard to update its master plan as relates to Devens. Devens is a former military base that was BRAC'd in 1996 and has been redeveloped with a variety of industrial, commercial, institutional and residential uses. Of its 4,425 acres, more than 2,600 are located within Harvard's historical boundary. Harvard land at Devens is a mix of industrial, commercial and residential uses and would be a significant source of new tax revenue should Harvard resume jurisdiction over this property. A key component of BMcD's work is to evaluate the economic impact of Devens, including the fiscal implications should the town resume jurisdiction. Specific tasks presented in this draft report include:

- An estimation of new revenues and expenses to Harvard resulting from reincorporation of historical land at Devens.
- Economic impacts on Harvard from Devens' business activity.

Among BMcD's preliminary findings:

- Previous reports have highlighted Harvard's below-average ratio of commercial and industrial property (CIP) assessed value to total assessed value. However, when Devens property was factored in, Harvard's CIP was comparable to similar communities.
- Previous reports have estimated operational deficits ranging from \$468,000 to \$1.5 million should Harvard resume jurisdiction over Devens.
- There is an additional 4.3 million square feet of space available for development, including 858,000 square feet on the BMS site and 158,000 square feet of residential property to be developed at Grant Road.
- The 2016 tax revenue impact (property + other fees) of Devens land reincorporation is projected at \$4.0 million, with \$4.58 million projected in new municipal expenses, an operational deficit of (\$573,400).
- Over the long-term, the gap between revenues and expenses is projected to close as the Bristol-Myers Squibb (BMS) TIF agreement matures and additional land is developed.
- In 2023, revenues are projected at \$5.68 million with expenses at \$5.625 million, a surplus of \$62,000. Values are reported in 2015 dollars. The net financial benefit to Harvard Public Schools from Devens tuition was \$1.23 million in FY2015, a figure which has grown by 2.8 percent annually since 2011.

- Daily operations of Devens business and spending by local employees support 140 jobs in Harvard and \$2.8 million in wages.
- The top industries supported in Harvard by Devens economic activity include maintenance/repair, accounting, legal services, medical services, real estate and restaurants.
- The annual fiscal impact from household and business-to-business spending in Harvard is estimated at \$390,200 in the form of property taxes and other minor fines/fees.
- Should Harvard businesses procure 0.5 to 1 percent of Grant Road phase 1 and BMS expansion soft costs (\$1,251,900), it would support a total of 10 person-year jobs in Harvard, with earnings of \$615,200 spread across the construction period.

## 2.0 ECONOMIC AND FISCAL IMPACTS

### 2.1 Introduction

BMcD was retained by the Town of Harvard to evaluate Devens' impact as it related to master planning and municipal finance. One key element of BMcD's work is to assess the financial implication should Harvard resume jurisdiction over its historical boundaries at Devens. For this analysis, BMcD uses a combination of data from the Devens Assessor, Massachusetts Department of Revenue, Bureau of Labor and Statistics, IMPLAN, MassDevelopment, the Enterprise Commission, Harvard Public Schools and interviews with experts in housing and real estate. This document presents the findings of the economic and fiscal analysis.

#### 2.1.1 Findings of Previous Reports

As part of the initial project kick-off, BMcD reviewed previous reports that highlighted a range of financial and economic issues related to Devens property disposition and development. Report findings are considered in light of the year in which they were produced to help frame current issues:

- The 2015 report, "Devens Economic Analysis Team Report to Selectmen" combines property tax records with modeled municipal expenses to assess the economic viability of Harvard resuming jurisdiction over its historic boundary at Devens. Among the report's findings:
  - There was a 20 percent decline in Devens property values between 2008 and 2012 which was less than the regional market. Property values at Devens have begun their recovery.
  - The report identifies 32 pad-ready sites in Harvard with capacity for new development. Should development occur, the projected tax revenues from these sites is \$4.27 million.
  - The maturing of the Bristol-Myers Squibb Tax Agreement will add significant annual value to the tax base over the next 14 years.
  - The analysis projects an operational deficit of approximately (\$468,000) should Harvard resume jurisdiction over its historical boundary. However, the operational deficit is projected to decline as available sites are developed and existing TIFs mature.
- The 2014 report, "Town of Harvard Devens Economic Analysis Team Report to Selectmen" looked at key issues related to disposition of Devens including municipal revenues, costs and operations. Among its findings:
  - The ratio of commercial and industrial property (CIP) assessed value to total assessed value was 5 percent, considerably below the average for comparable towns (17.8

- percent). When Devens property was factored in, Harvard's CIP was comparable at 16.6 percent.
- The combined property tax and non-tax levy revenues from Harvard property at Devens was \$3,718,975. Expenses were estimated at \$4,582,658, for an annual operating deficit of (\$863,683).
  - Previous analyses have estimated operational deficits of \$1.5 million and \$850,000 for calendar years 2011 and 2012, respectively.
  - The 2010 report, “What Does it Cost to Run Devens?” analyzed the financial operations of the Devens Regional Enterprise Zone (DREZ). Among the report's findings:
    - External funding was the largest source of operational income at Devens.
    - Operating expenses at Devens consistently exceeded operating revenues by large margins.
    - If external funding continued to sustain Devens, then revenues from TIF maturation and commercial development could generate significant economic benefit to surrounding communities.
  - A 2009 report to the Fiscal Impact Analysis Team (FIAT) investigated Harvard's structural deficit and explored possibilities for reducing or eliminating it. Among the report's findings:
    - Land use decisions had contributed to Harvard's fiscal challenges. Specifically, Harvard had encouraged development that is the most costly to service – single family homes that appeal to families seeking high-performing schools. There is limited development in Harvard generating revenue to offset these costs.
    - There was a need for Harvard to encourage more balanced land use policies, both to expand its non-residential (commercial/industrial) land uses and to encourage a broader range of residential uses.

## 2.2 Real Estate Overview

Table 2-1 summarizes acreage by classification within Harvard's historical boundary as classified by the Devens' Assessor. According to 2015 records from the Devens Board of Assessors, there are 4,425 acres of land at Devens. 60 percent, or 2,664 acres, lie within Harvard's historical boundary. The majority of Harvard's acreage, 2,328 acres, is in the form of government, charitable or institutional uses, a share of which includes unsold parcels available for development. Another 247 acres is classified as industrial, which includes manufacturing buildings and warehouses. According to 2015 property records, the combined taxable value of property within Harvard historical boundary is \$182,101,118, which is approximately 75 percent of Devens' taxable value.

**Table 2-1: Harvard Land Uses at Devens**

<b>Land Use Classification</b>	<b>Devens (acres)</b>	<b>Harvard (acres)</b>	<b>% Harvard</b>
Single Family Residential	31	20	64%
Industrial	298	247	83%
General Office	15	15	100%
Developable Land--Accessory to Commercial	32	32	100%
Developable Land-Accessory to Industrial	36	0	0%
Government/Charitable/Institutional	3,931	2,328	59%
Other	82	22	27%
<b>Total</b>	<b>4,425</b>	<b>2,664</b>	<b>60%</b>

Source: Devens Assessor

Note: Numbers may not add due to rounding

### 2.2.1 Pending Development

There are three pending/current projects which will grow the taxable value of Harvard property and associated revenue at Devens:

- Devens Village Green, otherwise known as Grant Road, is a 124-unit master planned residential development. The project will be phased over a period of five years at 25 units/year. Grant Road will be a blend of rental and owner-occupied units. According to the submittal package, 97 units will be market rate while 27 will be available to households earning between 80% and 120% of the Area Median Income (AMI). The housing mix includes:
  - 40 multifamily units ranging in size from 645 to 945 square feet;
  - 19 townhouse units—single units are 1,300 square feet;
  - 22 duplexes at 1,520 square feet/unit; and
  - 43 single family homes that include a blend of cottage and larger single family units ranging in size from 1,625 to 1,920 square feet.
- A \$250 million dollar, 250,000-square foot expansion of Bristol-Myers Squibb (BMS). The project is to be fully-occupied by 2016. In 2016, 80 percent of the building's value will be tax exempt according to the Bristol-Myers Squibb Tax Agreement (TIF).
- New England Recovery Center—a 110-bed for-profit hospital treating psychiatric and substance abuse patients. The 77,900-square foot facility will be built on 7.6 acres and is to be fully occupied in fall of 2016.

### 2.3 Fiscal Impact

The following section looks at the net fiscal impact to Harvard, should Harvard resume jurisdiction over its historical land at Devens.

### 2.3.1 Methodology & Assumptions

BMcD's analysis of Harvard resuming jurisdiction over its historical land at Devens takes into consideration new revenues in the form of property taxes, as well as new expenses in the form of city services. To estimate new revenues, BMcD applied Harvard's current tax rate of 17.79/\$000 to 2015 assessed values obtained from the Devens Assessor. Revenues projected in 2016 include existing, occupied properties and pending projects that will be fully-occupied/operational by this time: the first phase of Grant Road, BMS expansion and the New England Recovery Center. 2023 projections also include 580,000 square feet of new development, with build-out phased at 80,000 square feet annually. A key consideration projecting annual property taxes is the impact of the BMS Tax Increment Finance agreement on annual property tax revenues, which limits the taxable value of the BMS building to 20 percent in 2016. The taxable value increases annually to 70 percent in 2023. The land value is fully taxed.

#### 2.3.1.1 Key Assumptions

- Assessed value/sf for new development: \$110/sf
- Annualized increase in assessed value across all property types: 1.75%
- Property tax rate: 17.79/\$000
- Square footage of new development in 2016: 367,500sf
- Annual property build-out following 2016: 80,000sf/year
- 2016 revenue projections include only projects that will be operational/occupied in that year. It does not include land that is potentially developable.
- 2023 revenue projections include land that is potentially developable, with average build-out assumed at 80,000sf/year.
- Municipal expenditures for new industrial and residential uses are assumed to be proportional to the taxable value of these uses as a share of Harvard's total assessed value.
- Non-tax revenues are estimated at 15% of property tax revenues.
- Projections do not take into consideration possible aid from the State.

### 2.3.2 Taxable Value

Table 2-2 summarizes projected tax revenues in 2016 from occupied properties and pending projects. According to the assumptions outlined above, the taxable value of Devens property is estimated at \$266 million with the total property tax potential estimated at \$3.49 million. There is an additional 4.3 million square feet of commercial space available for development, including 858,000 square feet on the BMS site and 158,400 square feet to be developed at Grant Road.



**Table 2-2: Taxable Value of Developed & Undeveloped Property**

Land Use	Value	Taxable Property		Undeveloped		
		Tax	Existing (sf)	Expansion (sf)	Expansion Value	Projected Property Tax
Commercial - Developed	\$ 161,338,000	\$ 2,602,072	1,862,000	659,128	\$ 72,504,000	\$ 1,289,800
Commercial - Undeveloped	\$ 32,052,000	\$ -	0	2,654,699	\$ 292,016,900	\$ 5,194,980
Commercial - Unbuildable	\$ 156,000	\$ -			\$ -	\$ -
Commercial Projects--BMS Expansion	\$ 27,500,000	\$ 98,000		858,000	\$ 94,358,000	\$ 336,000
Commercial Projects--New England Recovery	\$ 8,580,400	\$ 152,600	77,900			
Open Space	\$ -	\$ -			\$ -	\$ -
Residential - Developed	\$ 21,529,000	\$ 384,000	164,200		\$ -	\$ -
Residential - Undeveloped	\$ 8,787,000	\$ -	0		\$ -	\$ -
Residential Projects--Grant Road	\$ 6,263,000	\$ 111,000		158,000	\$ 4,357,000	\$ 77,500
Municipal	\$ -	\$ -			\$ -	\$ -
Federal/State	\$ -	\$ -			\$ -	\$ -
Streets	\$ -	\$ -			\$ -	\$ -
<b>Total</b>	<b>\$ 266,205,000</b>	<b>\$ 3,493,000</b>	<b>2,026,000</b>	<b>4,329,000</b>	<b>\$ 463,236,000</b>	<b>\$ 6,898,000</b>

Source: MassDevelopment, Devens Enterprise Commission

Note: Numbers may not add due to rounding

### 2.3.3 Revenues and Expenses

The net financial impact in 2016 and 2023 should Harvard assume jurisdiction over its historical boundary is summarized in Table 2-3. All dollars are reported in 2015 values. In 2016, new industrial, commercial and residential uses are projected to generate \$4.0 million in additional revenues, while \$4.6 million is projected in new municipal expenses, an operational deficit of (\$573,000). However, as available land is developed and the BMS TIF matures, the fiscal deficit is projected to close, as illustrated by Figure 2-1. By 2023, new revenues are projected at \$5.68 million, with \$5.63 projected in municipal expenses, an operational surplus of \$62,000.

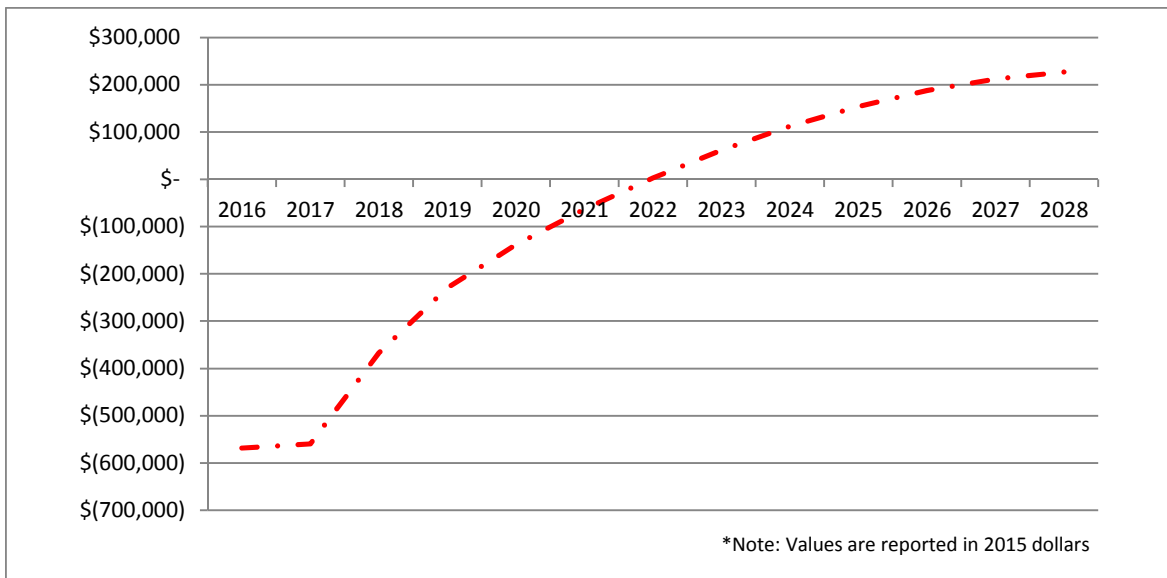
**Table 2-3: Projected Municipal Revenues/Expenses**

	FY2016	FY2023
<b><u>New Revenues</u></b>		
Property Taxes	\$ 3,493,000	\$ 4,945,000
Non-Tax Revenues	\$ 524,000	\$ 742,000
<b><u>Total</u></b>	<b>\$4,017,000</b>	<b>\$ 5,687,000</b>
<b><u>Estimated Municipal Expenses</u></b>	<b>\$ (4,589,000)</b>	<b>\$ (5,625,000)</b>
<b><u>Surplus/(Deficit)</u></b>	<b>\$ (573,000)</b>	<b>\$ 62,000</b>

Source: Massachusetts Department of Revenue, Devens Parcel Data, MassDevelopment

\*\* In 2016, these values include existing structures and pending projects. They do not include undeveloped/unbuildable land

**Figure 2-1: Net Revenue Projections**



### 2.3.4 Implications of TIF

Although the fiscal analysis reveals a gap between new tax revenue and municipal expenses in 2016, the existing Bristol-Myers Squibb Tax Increment Finance (TIF) agreement has implications for future tax revenues. Under the terms of the TIF agreement, a share of the BMS building value is exempt from taxation, according to the schedule below. In 2016, the taxable value of the property, including pending expansion, is \$13.4 million, which generates \$239,996 in property taxes. However, as the building exemption declines, property tax revenues grow annually by an average of \$38,615.

**Table 2-4: BMS TIF Agreement**

FY	Exemption	Taxable Land	Taxable Building	Total Taxable		Annual Increase
		Value	Value	Value	Property Tax	
2016	80%	\$ 6,435,900	\$ 7,054,500	\$ 13,490,400	\$ 239,994	
2017	70%	\$ 6,435,900	\$ 10,581,700	\$ 17,017,600	\$ 302,743	\$ 62,749
2018	60%	\$ 6,435,900	\$ 14,109,000	\$ 20,544,900	\$ 365,494	\$ 62,751
2019	50%	\$ 6,435,900	\$ 17,636,200	\$ 24,072,100	\$ 428,243	\$ 62,749
2020	45%	\$ 6,435,900	\$ 19,399,900	\$ 25,835,800	\$ 459,619	\$ 31,376
2021	40%	\$ 6,435,900	\$ 21,163,500	\$ 27,599,400	\$ 490,993	\$ 31,374
2022	35%	\$ 6,435,900	\$ 22,927,100	\$ 29,363,000	\$ 522,368	\$ 31,374
2023	30%	\$ 6,435,900	\$ 24,690,700	\$ 31,126,600	\$ 553,742	\$ 31,374
2024	25%	\$ 6,435,900	\$ 26,454,400	\$ 32,890,300	\$ 585,118	\$ 31,376
2025	20%	\$ 6,435,900	\$ 28,218,000	\$ 34,653,900	\$ 616,493	\$ 31,374
2026	15%	\$ 6,435,900	\$ 29,981,600	\$ 36,417,500	\$ 647,867	\$ 31,374
2027	10%	\$ 6,435,900	\$ 31,745,200	\$ 38,181,100	\$ 679,242	\$ 31,374
2028	5%	\$ 6,435,900	\$ 33,508,900	\$ 39,944,800	\$ 710,618	\$ 31,376
2029	0%	\$ 6,435,900	\$ 35,272,500	\$ 41,708,400	\$ 741,992	\$ 31,374

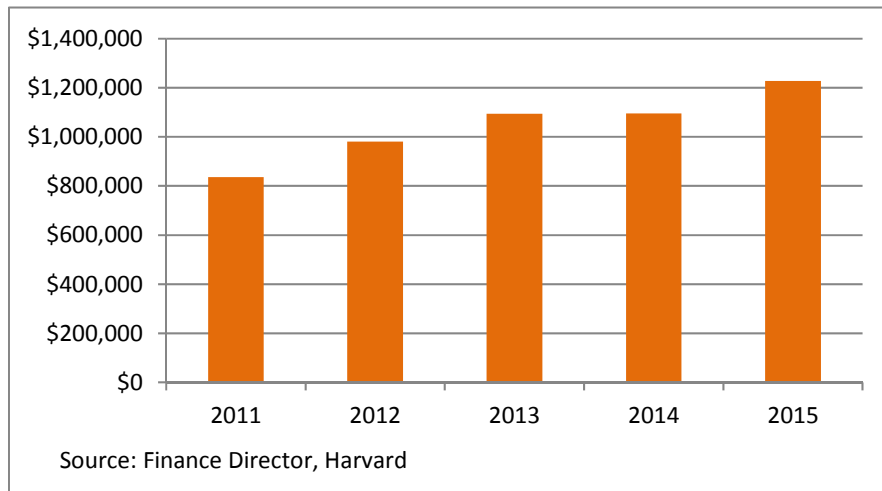
Note: The taxable building value is based upon a rate of \$110/sf

Source: Mass Development

## 2.4 School Impacts

While Harvard currently does not capture property tax revenues from Devens, the community benefits in other ways. Take, for instance, Harvard Public Schools. MassDevelopment contracts with Harvard Public Schools to provide education for children that live at Devens. The MassDevelopment contract provides tuition payments at the actual average cost per student, a figure that is adjusted annually. In FY2015, the amount was \$15,523 per student. The net financial benefit to Harvard Public Schools from Devens tuition is summarized in Figure 2-2. In FY2015, that amount was \$1.23 million, a figure which has grown annually by 2.8 percent since 2011. Other payments made to Harvard Public Schools from MassDevelopment are in the form of reimbursables for transportation costs and certain technology expenses.

**Figure 2-2: Harvard Public Schools Net Benefit from Devens Enrollees**



There were 77 Devens students enrolled in Harvard Public Schools in FY2015, as summarized in Figure 2-3. Devens enrollees currently represent 7.8 percent of the student body, a figure that has grown since 2011 as local enrollment has declined. In the coming years, Harvard Public School enrollment has the potential to be further boosted by children from the Grant Road development.

**Figure 2-3: Harvard Public School Enrollment by Student Type**

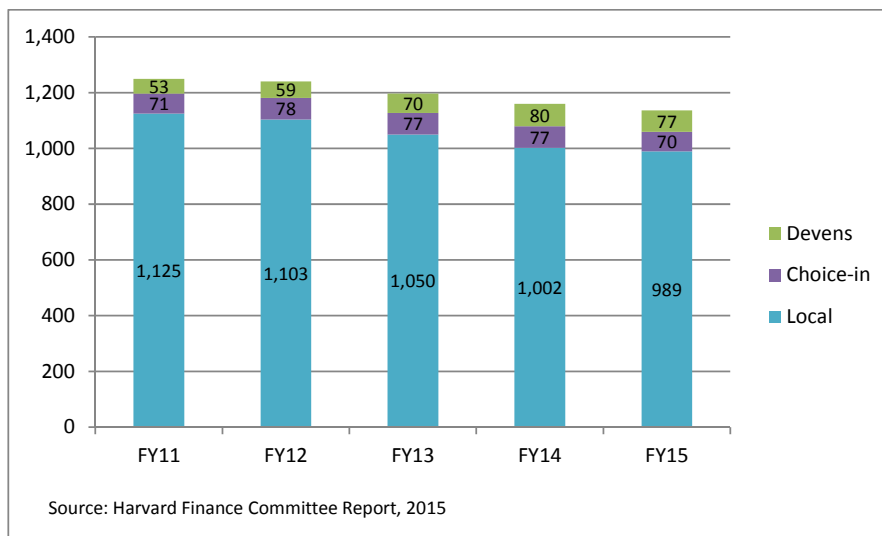
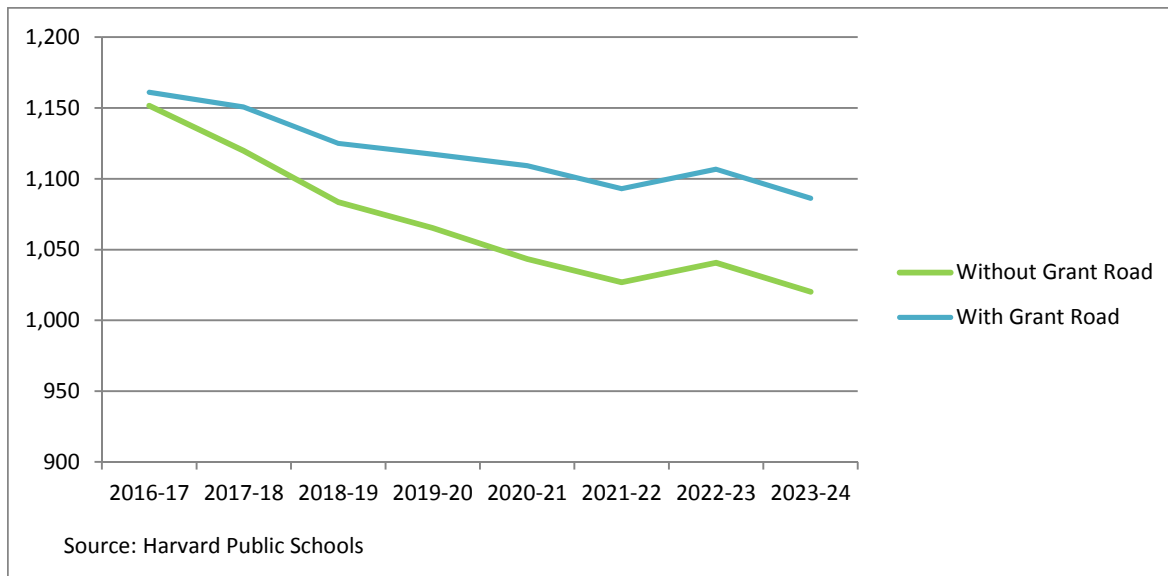


Figure 2-4 presents 2015 enrollment projections for Harvard Public Schools with and without students from Grant Road. According to these statistics, total enrollment at Harvard Public Schools will continue to decline. However, the Grant Road housing project is projected to yield an average of 50 additional students per enrollment year. A 2013 study by the former Interim Superintendent of Harvard Public

Schools reported there was ample capacity in Harvard Public Schools to accommodate these additional Grant Road students.

**Figure 2-4: Harvard Public School Enrollment through 2023**



## 2.5 Economic Contributions

The following section looks at the economic contribution of Devens jobs and construction on Harvard. Economic impacts can be described as the sum of economic activity within a defined geographic region resulting from an initial change in the economy. This initial change spurs a series of subsequent indirect and induced activities as a result of interconnected economic relationships. It is important to note that Harvard captures the benefits of jobs and construction at Devens regardless of land disposition status.

There are three components of an economic impact: direct effects, and indirect & induced effects (commonly referred to as the “multiplier effect”):

- **Direct effects:** Direct effect is the change in the economy being measured. In this case, the direct effect is the 4,030 high-wage jobs at Devens, and the estimated 45 jobs filled by Harvard residents. Direct impact is measured in terms of direct output, earnings and employment.
- **Induced effects:** Additional output, earnings, and employment generated in Harvard as a result of household purchases by Devens’ employees.
- **Indirect effects:** Additional output, earnings, and employment generated as a result of the purchases of industries which supply goods and services to businesses at Devens.

The cumulative impacts of the above components constitute the total impacts.

Impacts are typically expressed in terms of three variables - Output, Earnings, and Employment:

- **Output:** The total value of goods and services produced across all industry sectors within a defined geographic region, in this case, zip code 01451.
- **Earnings:** The component of Output that is attributed to labor income. Expressed in 2015 dollars, earnings include both wages and income received by self-employed workers, proprietor income.
- **Employment:** The total number of net new jobs created in the economy.

The economic analysis uses employment data in an Input-Output model to estimate the total employment, output, and wages generated by the flow of household spending by Devens employees who live in Harvard, and the impact of business-to-business purchases by these businesses. The following analysis was prepared using data from Minnesota Implan Group. IMPLAN is a proprietary data system providing input-output (I-O) modeling to measure the economic effects generated by a change in final demand. The IMPLAN model is widely used across the United States by government and private entities to prepare location-specific economic impact analyses.

## 2.5.1 Methodology

Business activity in Devens impacts neighboring communities in several ways. For one, construction at Devens is a temporary stimulus that supports local jobs and area spending on materials and services. Secondly, the daily operations of business and institutions at Devens support high-wage employment for area residents. Local employees then spend this income which supports additional jobs and wages in the community. Lastly, outdoor recreation at Devens draws outside visitors and spending which also supports local jobs and income. All of these factors are relevant in how Devens impacts Harvard and surrounding communities.

### 2.5.1.1 Analysis Framework

The following analysis focused on the ongoing economic contribution of high quality employment at Devens and the temporary stimulus on Harvard's economy each time there is construction. Due to the small study area and data limitations, the impact of recreational tourism was not included.

There are a number of alternative techniques in approaching impact analysis. However, without actual spending statistics by Devens business, the primary input to derive indirect impacts was the 4,030 jobs by industry sector that operate at Devens on a daily basis (Table 2-5). To measure the effect on Harvard's

economy from household spending affiliated with these jobs, the number of Harvard residents working at Devens was estimated. Using a combination of commuter statistics from the American Community Survey, drive time maps, and an employee transportation survey obtained from MassDevelopment, it is estimated that 40-45 Harvard residents are employed at Devens. Induced impacts were therefore scaled to account for the fact that 40-45 Devens employees actually live in Harvard.

**Table 2-5: Devens Employment by Industry Sector**

<b>Industry Sector</b>	<b>Total Employment</b>
Professional, Scientific and Technical Services	375
Manufacturing	1,177
Transportation and Warehousing	630
Wholesale Trade	306
Accommodation and Food Services	133
Educational Services	255
Public Administration	671
Arts, Entertainment, Recreation	48
Health Care and Social Assistance	62
Other Services	12
Administrative, Support and Waste Management	32
Finance and Insurance	18
Information	96
Retail Trade	73
Construction	40
Management of Companies and Enterprises	30
Real Estate, Rental, Leasing	65
Utilities	7
<b>Total Employment</b>	<b>4,030</b>

Source: Umass Donahue Institute & MassDevelopment

Construction impacts measure the one-time effect to Harvard's economy resulting from construction spending. For economic analysis purposes, only construction dollars made within Harvard are considered changes in the economy and are included within the direct impacts. Considering Harvard's business community is small and lacks large suppliers of building materials, it was assumed the community captures little to no spending on hard construction costs. However, it is reasonable to assume Harvard businesses could capture 0.5-1 percent of soft construction costs in segments like real estate, engineering, architecture, and other professional services.

## 2.5.2 Annual Employment Impacts

This following table looks at the economic contribution of Devens businesses and employees on Harvard's economy. Daily operations of businesses at Devens support 129 jobs in Harvard and \$2.3 million in wages. Additionally, the estimated 45 employees who live in Harvard spend a share of this income locally support another 11 jobs and \$487,000 in wages. The combined effect of business-to-business and household spending is 140 jobs in Harvard and \$2.8 million in local wages.

**Table 2-6: Devens Employment Impacts**

	Devens Direct Impacts	Harvard Indirect	Harvard Induced	Harvard Indirect & Induced Impacts
Employment	4,030	129	11	140
Wages	\$376,128,147	\$2,380,535	\$487,000	\$2,867,535
Output	\$1,289,238,319	\$8,265,073	\$1,606,100	\$9,871,173

Source: Minnesota Implan Group (MIG)

The top industries supported in Harvard by business-to-business and household spending are summarized in Table 2-7 and Table 2-8. Maintenance/repair, accounting, and legal services represent the top industries supported by business-to-business spending. Household spending supports local health care segments, real estate, and restaurants, to name a few.

**Table 2-7: Top Harvard Industries Supported by Business Spending**

Harvard Industry	Employment	Business Output
Maintenance and repair construction of nonresidential structures	33	\$5,825,600
Accounting, tax preparation, bookkeeping, and payroll services	25	\$2,623,600
Legal services	18	\$3,261,400
Management of companies and enterprises	14	\$233,200
Real estate	9	\$1,011,200
Wholesale trade	7	\$300,700
Other financial investment activities	6	\$1,039,200
Insurance agencies, brokerages, and related activities	6	\$1,180,400
Transit and ground passenger transportation	6	\$372,700
Architectural, engineering, and related services	5	\$232,000

Source: IMPLAN



**Table 2-8: Top Harvard Industries Supported by Household Spending**

<b>Harvard Industry</b>	<b>Employment</b>	<b>Business Output</b>
Hospitals/Offices of physicians	1.33	\$189,200
Real estate	0.75	\$171,600
Nursing and community care	0.61	\$41,500
Full-service restaurants	0.53	\$26,400
Limited-service restaurants	0.46	\$26,100
Individual and family services	0.43	\$17,800
Wholesale trade	0.38	\$90,000
All other food and drinking places	0.37	\$31,000
Other financial investment services	0.33	\$52,800
Home health care services	0.29	\$15,700
Outpatient Care	0.26	\$42,900

Source: IMPLAN

The annual fiscal impact to Harvard from household and business-to-business spending from Devens is estimated at \$390,200 in the form of property taxes and other minor fines/fees.

**Table 2-9: Fiscal Impact of Household and Business Spending**

<b>Revenue Category</b>	<b>Annual Revenues</b>	<b>Annual Revenues (\$2015)</b>
Personal Tax: Income Tax	n/a	n/a
Personal Tax: NonTaxes (Fines- Fees)	\$ 760	\$ 800
Personal Tax: Property Taxes	\$ 180,100	\$ 389,400
<b>Local Taxes Supported</b>	<b>\$ 180,900</b>	<b>\$ 390,200</b>

Source: IMPLAN, BMcD

Note: Numbers may not add due to rounding

### 2.5.3 Construction Effects

Construction impacts measure the one-time effect on Harvard's economy resulting from construction at Devens. Construction benefits surrounding communities by supporting temporary jobs, wages, and spending on materials and services. For the purposes of this analysis, only construction costs made within Harvard are considered changes in the economy and are included within the direct impacts. BMcD

modeled the effects of initial spending on the first phase of Grant Road and the BMS expansion with combined budgets of \$250,389,000. “Soft” costs like professional services are estimated to comprise approximately 30 percent of the overall budgets (\$75,117,000). While Harvard is unlikely to capture spending on hard construction expenses like building materials, it is realistic to assume Harvard businesses could procure 0.5 to 1 percent of project soft costs (\$1,251,900). With a direct spending impact in Harvard of \$1,251,900, construction activities would support a total of 10 person-year jobs, with earnings of \$615,200 spread across the construction period.

**Table 2-10: Devens Construction Impact**

	Direct		Total Impacts
	Impacts	Indirect/Induced	
Employment	8	2	10
Wages	\$530,500	\$84,700	\$615,200
Output	\$1,251,900	\$328,000	\$1,579,900

Source: Minnesota Implan Group (MIG) & BMcD



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