

4.0 *Natural and Cultural Resources*

4.1 OVERVIEW

***Priority Action Program:
Natural and Cultural Resources***

- Initiate a community-wide tree planting and re-vegetation program (Greening Amherst)

Amherst's rich environmental and cultural resources contribute greatly to the Town's quality of life and community character. Although much of the Town is developed, many valuable sensitive lands and historic resources have been preserved. Important resources within Amherst include:

- ***Surface water resources:*** Amherst has a number of significant surface water resources, including the Tonawanda Creek (Erie Canal), Ellicott Creek, and Ransom Creek. These waterways provide recreational opportunities, irrigation, options for stormwater management, and important wildlife habitat.
- ***Floodplains:*** Floodplains have been mapped by the Federal Emergency Management Authority (FEMA). The floodway and 100-year floodplain are important demarcation areas for planning due to special construction requirements within these sensitive areas. Due to level terrain, abundant water resources, and poorly drained soils, a significant part of the Town (including most of Northeast Amherst) lies within the 100-year floodplain.
- ***Wetlands:*** Several large wetland areas exist within Amherst, many of which are protected as part of the Town's existing public open spaces. Wetlands are important due to their value as habitat and their ability to reduce the impacts of flooding and enhance water quality.
- ***Woodlands:*** While much of Amherst's natural vegetation has been cleared for development or agriculture, significant amounts of woodland remain, particularly along stream corridors, in wetland and conservation areas, and in the northern part of Town. In addition to providing environmental benefits such as habitat for wildlife and improved air and water quality, woodlands make important contributions to Amherst's visual character.
- ***Soils:*** Much of Amherst is underlain by poorly drained soils that were formed from silts and sands deposited at the bottom of a glacial lake. Most of the soils are deep, nearly level, and have the potential for saturation. In addition, many of the soils

have the ability to produce high yields and are designated as agriculturally significant soils at the state and federal levels.

- **Historic and cultural resources:** Due to its location along the Erie Canal and its role in the growth of Western New York, Amherst has many potentially significant historic structures. Currently, there are six local historic landmarks within the Town and ten within the Village of Williamsville. Two surveys of historic resources within Amherst have identified other potentially valuable historic resources in the Town. In addition, the cultural, visual, and performing arts offered by institutions such as the University at Buffalo and Daemen College are important community resources. Musicfare Theatre at Daemen College is identified as a “resource of county-wide significance” in Erie County’s *Guiding Principles for Countywide Land Use Planning*.

The Comprehensive Plan Vision Statement speaks to the importance of preserving natural, historic, and scenic resources throughout Amherst. The goals, objectives, and policies of this element are designed to promote the preservation and management of these critical resources for the benefit of present and future generations and the surrounding region. These resources have significance beyond Amherst, and Erie County has identified many as having countywide importance. Planning for these resources should be regional in perspective, involving the County and surrounding municipalities.

***Vision Statement Directions:
Natural and Cultural Resources***

- Preserve open space, natural, and scenic resources
- Preserve historic resources
- Protect against noise, light, air, and water pollution
- Protect woodlands and tree canopy

4.2 GOALS, OBJECTIVES, AND POLICIES

GOAL

Sensitive environmental and cultural resources identified and preserved as part of the physical fabric of the community

OBJECTIVES

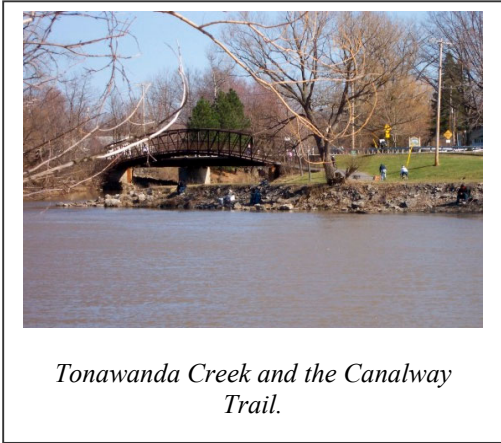
- Establish an interconnected open space network that incorporates significant natural and cultural resources
- Protect sensitive environmental resources through improved regulations, policies, and management, including:
 - Water resources and wetlands
 - Air quality
 - Trees and woodlands
 - Historic and cultural resources

POLICIES

A. Open Space System

Establishment of a town-wide network of parks, open spaces, and greenways is one of the organizing principles of the Land Use and

Development Element, as described in Policies 3-13 to 3-15. This network is envisioned as a primary means of accomplishing preservation of sensitive natural and cultural resources.



4-1 Establish greenway corridors along streams as part of a town-wide open space system.

Land Use and Development Policy 3-13 proposes establishment of a town-wide open space and greenway network to be achieved through a variety of mechanisms, including public acquisition, conservation development options, and private landowner conservation. As illustrated in the accompanying Parks, Open Space and Trail Map (Figure 4) and Conceptual Land Use Plan (Figure 6), greenway corridors along streams and associated water resources (100-year floodway and wetlands) are essential components of this network.

4-2 Provide conservation development options to encourage dedication of significant habitat as permanent open space.

Conservation development is a technique that groups houses and roadways closer together in compact patterns, thus accommodating development while preserving valuable open space and environmental resources. As described in Policy 3-14, the Town should enact new regulations to encourage use of this option for new developments where public sewer is available or soils are conducive to on-site sewage disposal. The regulations should include standards for the dedication of significant natural resources and habitat areas as permanent open space.

4-3 Acquire land or development rights on land with environmental resources of local significance, consistent with an open space plan or determined to be in the public interest.

Policy 3-15 proposes that the Town initiate a public acquisition program to help develop an open space and greenway network. The presence of sensitive natural or historic resources should be one of the basic criteria used to identify properties for potential acquisition as part of the network.

B. Water Resources and Stormwater Management

Figure 7 depicts water resources within the Town of Amherst. Water quality and stormwater management issues have been documented for all of the Town's three major streams. Policies 4-4 to 4-8 are designed to promote improved protection and management of the Town's water resources. The Joint Local Waterfront Redevelopment Plan (JLWRP) also provides guidance and policies for environmental protection and preservation along the Tonawanda Creek/Erie Canal corridor.

4-4 Establish buffer/setback standards for new development to help protect streams of significance.

Riparian or streamside buffers comprised of native vegetation are one of the most effective methods of protecting water quality. Instituting setback standards for all new development along waterways designated as Class C or above by the New York State Department of Environmental Conservation (NYSDEC) will contribute to improving the water quality of Amherst's streams.

Stream banks and associated natural buffer zones are extremely important to the health of the stream. A buffer will help ensure that vegetation along the streambank remains healthy and provides shade, food, and nutrients to the system. The roots from the vegetation help to stabilize the streambank and reduce erosion and siltation, a particular problem for Amherst's waterways. The leaf litter, roots, and ground cover in riparian buffers also act to filter sediment and other pollutants that would otherwise enter the waterway. Lastly, a buffer increases visual quality and provides for increased recreational potential and wildlife habitat.

In addition to setback standards, the Town should consider instituting management guidelines for different types of buffer zones. These guidelines would establish acceptable and unacceptable uses within the buffer and could address vegetation goals for each zone within the buffer. Residents and landowners should be encouraged to maintain the natural vegetation of riparian areas, which often are mowed and maintained as lawns. Mowing destroys native vegetation and prevents new plants from taking root. Private lawns are often treated with fertilizer and pesticides that can contaminate surface water. Signage could be installed along buffer boundaries to educate the public and encourage proper usage. These preservation standards should be applied to significant stream corridors as identified by Erie County in the *Guiding Principles for Countywide Land Use Planning* (1999).³

As a long-term goal, streamside buffer areas could be incorporated into the Town's open space network.

4-5 Adopt a town policy of no net loss of designated or jurisdictional wetlands within the town.

There are over 1,500 acres of wetlands designated by the NYSDEC in Amherst, mostly in the northern part of town. Wetlands provide numerous benefits, including flood mitigation, filtering of contaminants from stormwater runoff,

³ This report designates stream corridors having countywide significance as identified by the Erie County Department of Environment and Planning.

provision of wildlife habitat, and recreational opportunities. Many of Amherst's larger wetland areas are protected as part of existing public open spaces. While state and federal regulations restrict the development or filling of jurisdictional wetland areas, local efforts to supplement these regulations would help to prevent an overall net loss of wetlands within the Town. Figure 7 illustrates the location of jurisdictional wetlands regulated by the NYSDEC. Federal jurisdictional wetlands are delineated on a case-by-case basis, and therefore their location and extent is not known.

A no net loss policy means that jurisdictional wetland losses must be offset by equivalent wetland gains. This can be achieved through a number of mechanisms. First, Amherst could encourage the conveyance of conservation easements to prevent future alteration of wetlands on private properties. The easement would include an enforcement clause that would ensure the wetland area is protected and maintained by the landowner.

The Town could also support wetland mitigation in cases where no practicable alternatives to wetland alteration are available. While protection of existing wetlands is critical and optimal in a no net loss policy, this policy would require creation of a new wetland of equal or greater value when an existing one must be filled. This can either be done directly through the creation of a new wetland or by the purchase of credits from a party that has already established a wetland (referred to as a wetland mitigation bank). To ensure that the no net loss policy maintains the integrity of the current wetlands in the Town, guidelines should be established for the creation of new wetlands. The guidelines should encourage the use of vegetation and hydrology consistent with the characteristics of the current wetland system in Amherst. All created wetlands should have to adhere to these guidelines to ensure that they have the same function and value of the wetlands that were lost. Wetland mitigation areas should be legally protected by conservation easements or land donation.

4-6 Initiate watershed management plans in cooperation with the County and other municipalities in the watershed.

Due to Amherst's location near the Niagara River and on the Tonawanda Creek, most streams enter the Town after flowing through several other municipalities and a large part of Erie County. Therefore, many of the water quality and stormwater management problems in Amherst's waterways are initiated upstream. Ransom Creek and Tonawanda Creek both have documented water quality issues before entering Amherst and many of the actions taken upstream affect water quality and flooding in Amherst. Amherst should engage other

municipalities and government agencies in watershed-based management planning to protect and improve water quality and stormwater management.

Erie County has designated both the Ellicott Creek and Ransom Creek watersheds as environmental features of countywide significance.⁴ Watershed management planning for these creeks in cooperation with other municipalities and possibly Erie County would be an effective way to address watershed-wide water quality and stormwater management issues. Several watershed studies have been completed or are currently underway in Amherst. These efforts could be the starting point to engage other communities and would provide an important information base. The Ransom Creek Improvement Study has been recently completed and focuses on flooding and stormwater management in northeastern Amherst. Other studies include a reconnaissance study of the Ellicott Creek watershed by the Army Corps of Engineers and a Flood Mitigation Plan. Amherst will also likely begin stormwater management planning in order to comply with federal Environmental Protection Agency (EPA) and NYSDEC regulations.

The watershed management planning process should begin with an identification of the major issues within the watershed and the goals of the planning process. This will help to focus planning efforts and ensure that the major benefits of the resource are identified and addressed. After the initial scoping, the planning process should include an inventory of the watershed and collection of all relevant available data. All inventory information should be analyzed by engineers, hydrologists, ecologists, and economists.

After the initial assessment, resource standards and management strategies can be developed based on the initial goals of the plan. Management strategies should address issues on a watershed-wide basis, including opportunities for intergovernmental coordination. Resource standards should reflect the integrated nature of the watershed. Specific actions should be developed to address the strategies and ensure that resource standards are met over time. An implementation schedule should be devised to ensure that the actions of the plan are carried out and have adequate funding. The watershed management planning process should be revisited every five to ten years to measure progress towards goals and to incorporate changes in priorities.

⁴ *Guiding Principles for Countywide Land Use Planning*, Erie County Department of Environment and Planning, 1999

Several guides and references exist on how to develop a watershed management plan. The Center for Watershed Protection in Maryland, the EPA Office of Water, the United States Geological Service (USGS), and the New York DEC all have published guides on watershed management planning. Watershed Plans could also be coordinated with the New York DEC, USGS, or the regional EPA office for guidance and potential funding.

4-7 Apply “best management practices” (BMPs) to reduce water quality impacts of development.

Best management practices are measures designed to minimize the impacts of stormwater runoff from land development on water quality. Examples include erosion control during construction, preservation of buffers of natural vegetation, and on-site detention of stormwater to filter out pollutants.

Development typically results in an increase in impervious cover and removal of natural vegetation. An increase in impervious cover creates more overland flow, causing water to be unable to infiltrate into the ground and be filtered of sediment and contaminants. An overall increase in impervious surfaces throughout the Town exacerbates stormwater quality problems. At a specific construction site, stormwater can remove a considerable amount of sediment. Several best management practices can be recommended to improve stormwater quality from new development.

- ***Preserve natural vegetation and institute clearing limits for new construction:*** Vegetation can be one of the most effective and cost effective methods of improving stormwater quality. Where possible, natural vegetation should be retained in new developments. On sites where existing vegetation has been removed and replanted rather than maintained, it will likely take a number of years for the replanted areas to remove contaminants and sediment at the same rate as the original vegetation. Developers should be encouraged to establish maximum areas to be cleared at a time. Large cleared areas can result in much higher erosion and sedimentation rates and corresponding impacts on water quality.

The benefits of preserving natural vegetation are many. Vegetation decreases water temperature by shading stormwater ditches, waterways, and pavement. Vegetation captures and absorbs water and helps to keep soils permeable. It provides stability to soils that would otherwise erode at a faster rate. It traps and filters potential contaminants and provides habitat.

- ***Protect or restrict development on steep slopes:*** Although not likely a major problem in the level terrain of Amherst, the protection of unstable or steep slopes will decrease sedimentation in stormwater runoff. Methods of slope protection include mulching, matting, seeding, and installation of retaining walls combined with native

plantings. Other methods include piping concentrated runoff from the top of a steep slope to the bottom and creating parallel grooves or terracing the slope to make it more stable.

- **Detention/retention:** One Best Management Practice currently utilized by the Town is to retain stormwater on-site, thus reducing downstream flooding and allowing pollutants to filter out over time. Several methods can be used to detain or retain stormwater. Wet detention ponds have outlets higher than the bottom of the pond, allowing sediment to filter out before the stormwater is released. Establishment of a wetland area in conjunction with a detention pond allows nutrients to be removed by the vegetation and will supplement the sediment controls.

Wetland creation can help retain stormwater and decrease water quality impacts. Vegetation helps to absorb excess nutrients and sediment. Created wetlands can also provide habitat and recreational opportunities.

- **Sediment collection:** A number of techniques are used by the Town to prevent sediment from leaving construction sites or recently cleared areas. These include silt fences, buffer strips, temporary drainage swales, temporary berms, and temporary storm drain diversions.
- **Limit impervious cover:** As previously stated, impervious cover (pavement and roofs) increases the rate and water quality impacts of stormwater runoff. Limiting the amount of impervious cover can reduce the amount of runoff coming from a site. To the greatest extent possible, vegetation should be kept intact and buffer strips and wetlands maintained or established to offset the impacts of impervious surfaces on stormwater runoff. One technique to reduce impervious cover is “low impact development” (Policy 4-8).

4-8 Implement “low impact development” standards and techniques designed to reduce the quantity and improve the quality of stormwater runoff from development.

Low impact development is an alternative to conventional stormwater management. The intent of this approach is to control stormwater runoff in a cost-effective and ecologically sound manner. It minimizes the disturbance to natural systems, reduces the coverage of impervious surfaces, and infiltrates stormwater on site with the goal of retaining pre-development hydrologic conditions. Low impact development techniques include permeable pavement, bioretention areas (wetlands), and grass swales. Redirecting runoff from rooftops away from

Low impact development is an approach to managing stormwater runoff that minimizes disturbance of natural areas, reduces the amount of impervious surfaces (buildings and pavement), and, to the extent possible, infiltrates stormwater on the site.

storm sewers and into grass swales or irrigation ditches is also an effective method of mitigating the effects of stormwater runoff.

Several street design strategies also can reduce the impact of development on stormwater flows. Streets can be designed at the minimum width necessary to accommodate traffic. Center islands can be incorporated into cul-de-sacs to absorb stormwater runoff. Parking areas and driveways can be shared. Setback standards for homes can be reduced. These strategies are consistent with the pedestrian-oriented, compact development patterns described in the Land Use and Development Element.

Conservation development is another low impact development strategy (see Policies 3-15 and 4-2). By maintaining substantial open space areas in natural cover, this approach maintains natural drainage patterns and reduces development impacts on stormwater runoff and water quality.

The Town should consider revising its existing stormwater management standards to incorporate low impact development techniques. Further research should be conducted on which areas have the most suitable conditions for application of low impact development techniques, as certain site characteristics are more appropriate. In addition, some low impact development techniques require continual maintenance. Individual homeowners might not have the ability or will to maintain these areas. Therefore, these techniques might be more successful if they are implemented by the Town or other public agencies (e.g., on school properties) or through private development/management organizations, such as homeowner associations.

C. Air Quality

The Greater Buffalo-Niagara region is classified as a “Marginal Non-Attainment Area” for air quality because it slightly exceeds the EPA standard for ozone. The region is in attainment with the other EPA air pollutant standards. The Town of Amherst has no specific air quality designation within the region. Air quality is related to several causes; the primary contributor to local air quality is automobile use. Automobile use is directly tied to local land use and transportation patterns. Social dependency on the automobile will continue to impact air quality for the foreseeable future. However, a number of strategies are available that can help reduce the number of automobiles on the road and vehicle miles traveled.

4-9 Reduce air quality emissions by pursuing Comprehensive Plan strategies such as compact, mixed-use development patterns; tree planting; transit and other alternatives to automobile use, etc.

Several of the transportation policies outlined in Chapter 6.0 will contribute to ameliorating the impacts of private automobiles on air quality. These policies include:

- Enhance system capacities and undertake a capital program to maintain or improve the efficiency of the existing road system (6-4, 6-5)
- Develop a comprehensive bicycle network, using a rating system to identify and prioritize improvements (6-7)
- Develop a comprehensive pedestrian network of sidewalks, crosswalks, and trails (6-8)
- Work with NFTA to improve transit service and provide connections to activity centers (6-9)

The compact, mixed-use development patterns proposed by the Land Use and Development Element (Policies 3-1 and 3-2) will also contribute to reduced automobile dependency by providing opportunities to walk, bike, or take public transit (or shorter automobile trips) to retail and service areas and possibly to work. Other strategies to improve air quality in Amherst include tree preservation and planting (Policies 4-10 and 4-11), encouraging energy efficiency in new and existing buildings, and discouraging the burning of brush and leaves.

D. Tree Preservation

Trees and wooded areas improve aesthetics and contribute to community character. They provide numerous benefits including reducing flooding impacts and soil erosion, improving air quality, reducing water and noise pollution, and providing shade and habitat. The Vision Statement notes the importance of woodlands and tree canopy to the visual character of the Town. Consistent with the Vision Statement, tree canopy and woodlands should be preserved where possible and tree plantings encouraged on public and private lands.

4-10 Support the Town of Amherst Tree Law.

The Town of Amherst Tree Law was adopted in May 1992 as Chapter 179 of the Town Code. The main focus of the Tree Law is to maintain and improve the aesthetics and ecological systems of the Town. The Tree Law generally requires a permit to remove trees greater than 4 inches in caliper and prohibits trees from being removed from public land. Several exceptions to this law address trees that are a danger to public welfare or might inhibit operations of public utilities, farms, and other businesses. The Tree Law also enforces the management of trees on private property that may be affecting

Implementation of a number of Comprehensive Plan policies will contribute to *improving air quality*.



Street trees enhance visual character, provide shade and habitat, and reduce noise and air pollution.

public areas such as road intersections and rights-of-way. The Tree Law permits the Town to plant trees in parks and along streets. Limited guidelines for planting trees are included.

Amherst should support the Tree Law and the Town Forester who is charged with permitting and enforcing tree removal. Support of the Tree Law will ensure that private landowners do not remove trees that are of great benefit ecologically and aesthetically. In addition, it protects the natural integrity of public places. The following changes should be implemented to strengthen the effectiveness of the Tree Law:

- Appoint a Certified Arborist to act as Town Forester and to lead the Town's Division of Forestry
- Provide the Town Forester with increased enforcement powers to address illegal tree removal
- Provide continuous training and education for Forestry Division/Parks Department staff to foster better maintenance and management of town tree and landscape resources

4-11 Implement a “Greening Amherst” planting initiative consistent with a program of managing the “Town Landscape.”

“Greening Amherst” is envisioned as a community-wide tree planting and re-vegetation program encompassing both public and private action. Article V of Chapter 179 of the Town Code authorizes the Town to plant trees to enhance the beauty of public places and ensure public safety. Criteria should be developed to guide planting of trees and shrubs on streets and in parks consistent with Article V. This article sets standards as to how close trees can be planted to the curb and sidewalk. It also mandates that an official tree species list be developed and that only trees on the list be planted. The criteria should also designate priority areas for planting. Possible priority areas include roads as they enter the Town, parking lots, drainage areas, cemeteries, and major thoroughfares. The “Greening Amherst” initiative can be coordinated with other Plan initiatives. For example, consistent with Policy 3-13, which calls for on-street sidewalk/bike lane connections along public roadways, these facilities should be treed and landscaped to provide users with a pleasant recreational experience.

The “Greening Amherst” initiative should be coordinated with secondary schools, UB, and neighborhood and environmental groups. This would create a community sense of pride as well as ensure greater coverage and lower costs. Potentially using grant funding sources, a “tree endowment fund” could be established with tree planting “vouchers” available to neighborhood residents. American Forests, a national organization that is sponsoring a “Global ReLeaf” initiative, is

Greening Amherst is designed to involve the entire community in a tree planting and re-vegetation program in support of the Aesthetic/Community Character Key Initiative.

a potential resource and source of information. If volunteer groups are used, the Town should actively manage their efforts to ensure that correct species and locations are chosen.

The “Greening Amherst” initiative should be expanded over time to address the proper management of existing vegetation in Amherst’s parks and public places and to provide information on the management and planting of vegetation on private property. New standards should be developed for plantings in subdivisions and new developments. Lastly, the initiative should be coordinated with neighboring towns to ensure that community entranceways are improved.

E. Historic and Cultural Resources

Amherst has a rich historical legacy stemming from its location on the Erie Canal and role in the growth of Western New York. Amherst’s historic resources should be preserved because they promote pride in historical achievements and enhance the Town’s character and quality of life.

4-12 Encourage designation of historically significant resources for protection and provide incentives available through the Historic Preservation Ordinance.

Amherst should encourage the nomination of the highest ranked historically significant resources to the National and State Registers of Historic Places. The Town’s pursuit of grant monies to further investigate high priority sites for inclusion on the National Register will aid in determining eligibility. The recently completed *Reconnaissance Level Survey of Historic Resources* and *Intensive Level Survey of Historic Resources* identifies those resources that may be of greatest importance and provides much of the background information that is necessary when completing the application process. Resources that do not meet the criteria for the State or National Registers, but do have local historical significance, should be considered for designation as local landmarks. These sites should be brought to the attention of the Historic Preservation Commission and eventually submitted to the Town Board for designation.

The Historic Preservation Commission should also consider identifying areas of the Town where a local historic district might help in protecting historic character. The Historic Preservation Commission has this authority under Chapter 121 of the Town Code. The Town should work with and inform property owners when developing proposals for historic districts.



Amherst should also encourage the use of incentives for historic property rehabilitation. Designated historic properties are eligible for a variety of federal and state preservation benefits such as rehabilitation financing and tax credits.

Amherst should further maximize the benefits of being part of the Certified Local Government (CLG) Program under the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). Under the CLG program, Amherst is eligible for technical assistance in writing applications for nominations to the National Register of Historic Places and for grants that can be used to fund a variety of preservation activities. Amherst is also eligible for grants from the federal Historic Preservation Fund (HPF), the New York State Council on the Arts, and other agencies.

4-13 Support the cultural, visual, and performing arts as part of the Education Key Initiative.

Art, music, drama, literature, and other cultural arts are important to the quality of life, community heritage, and identity of the community. As part of the effort to position Amherst as a “knowledge-based” community, the Town should work with institutions such as UB and Daemen College to promote opportunities for residents to experience the cultural arts.

F. Resource Management

Sound management is critical to ensure that Amherst’s natural and cultural resources are maintained for future generations. Policies 4-6 and 4-7 describe management strategies designed to enhance the Town’s water resources and to reduce the water quality impacts of development. The Town should also consider developing management plans to address specific resources, such as historically significant resources or parks with a concentration of sensitive natural resources.

4-14 Develop management plans for public natural and historic resources of local significance.

Nature View Park, which contains extensive wetland areas, is an example of a town-owned resource that would benefit from a management plan to define both compatible uses and strategies to preserve and protect sensitive natural areas. The Town’s Capital Improvement Program includes development of a master plan for this park as an approved project. Management plans for similar natural areas and public parks should be considered.

Significant historic resources within Amherst would also benefit from management plans that define strategies to

maintain their historic character in the future. A management plan for the Amherst Museum and its grounds could be beneficial due to the historic structures located on the property and the site improvements that are planned in the Capital Improvement Program over the next several years. Amherst's significant historic resources are identified and rated in the *Reconnaissance Level Survey of Historic Resources* and the *Intensive Level Survey of Historic Resources*. The Town could consider developing a comprehensive management plan for all identified resources of local historical significance or, more likely, a subset of the most important resources as documented in the *Intensive Level Survey of Historic Resources*. The success of such plans would be enhanced if developed in cooperation with property owners.