

**TOWN OF AMHERST, NH**  
**RECREATION NEEDS ASSESSMENT AND**  
**MASTER PLAN REPORT**

**Volume 4**

**Section 1.0 – Introduction, Background, and Purpose**

Gale Associates, Inc. (Gale) was engaged by the Amherst Recreation Department to assist the Town with the development of a Recreation Programs and Facilities Needs Assessment and Master Plan. The goals of this study were:

1. To complete a facilities inventory and assessment to identify adequacy of existing facilities.
2. To complete a Recreation Program Needs Assessment to determine the adequacy, effectiveness and appropriateness of current recreation programs.
3. To prepare a Master Plan of Facility and Program Enhancements to better meet the recreational needs of Town stakeholders.
4. To prepare phasing plans and capital improvement budgets consistent with the Master Plan recommendations.
5. To review current maintenance resources and offer recommendations regarding the maintenance staffing and funding for an enhanced populations of facilities.

In the initial stages of the planning effort, Gale completed an inventory and evaluation of the town's recreational assets. Subsequently, Gale completed a community recreational needs survey, which resulted in nearly 1,000 responses, followed by a series of community sensing sessions and planning charrettes. The full details of the facilities assessment and needs survey, along with results and conclusions were provided to the Town under separate cover, and they form Volumes 1 and 2 of this report. The findings and conclusions of these two (2) studies will be summarized below.

Gale was also engaged by the Souhegan Cooperative School District to complete a facilities needs assessment for the Souhegan High School. A portion of this study evaluated the serviceability and adequacy of the school's indoor and outdoor athletic and recreation facilities. Additionally, the high school study included a demographics study assessing projected community population trends. The results of these studies have bearing on the Town Recreation

Master Plan, are also provided under separate cover as Volume 3, and are summarized below.

**The Town of Amherst has a 10 year lease agreement with the Amherst School District, renegotiated in 2008, that states that the Town of Amherst will maintain and improve the outdoor recreational facilities. In return, the Amherst Recreation Department is granted the right of use of said fields for recreational programs.**

**All cost estimates contained here in are projections based on industry standards and no formal design studies have been completed.**

In addition to the facilities owned by the Town of Amherst and those owned by the Souhegan Cooperative School District, the thorough assessment of recreation facilities utilized by citizens of the Town of Amherst includes facilities managed by the Amherst Conservation Commission, managed and owned by the Amherst School District and the Amherst Recreation Department. In performing evaluations and recommendations for each facility, ownership is clarified and often remarked upon in regards to intent for use by, partnership with, or involvement with the Amherst Recreation Department.

The intent of this report is to first define the Planning Program. The Planning Program is an articulation of the Town's recreation functional requirements, needs and priorities as determined from the facilities evaluation, the needs survey, sensing sessions, high school study, and demographics study described above. Secondly, this report will offer recommendations regarding a series of program and facilities enhancements intended to accomplish the Planning Program. Finally, this report will provide recommendations regarding a possible phasing of the proposed enhancements along with a capital improvements budget associated with their implementation. These recommended program and facility enhancements form the basis of the Amherst Recreation Master Plan going forward.

## **Section 2.0 - Synopsis of Recreation Facility Evaluations**

As an initial step in the recreation master planning effort, Gale completed an evaluation of seventeen (17) recreation sites. Additionally, Gale completed a demand assessment to quantify the use of the existing facilities and to assess their serviceability, compliance with applicable standards, and most importantly, their adequacy.

This initial deliverable, published under separate cover as Volume I, addressed the following questions:

- What is the general condition of the population of recreational and athletic field sites included as part of this project?
- What record information or base plans are available for each?
- What are some of the immediate repair or renovation needs for each site (as opposed to redevelopment or enhancement)?
- How many scheduled uses, by type, does each field sustain in a given year?
- What is the resultant impact on the quality of turf associated with this demand?

The assessment was performed using accepted industry standards and guidelines where available. A good example of the use of structured guidelines by which to assess an area of these fields is the Stadium Track and Field site. The National Federation of State High School Associations (NFHS) and the New Hampshire Interscholastic Athletic Association (NHIAA) guidelines were followed in the evaluation of the school field layout and equipment. Similarly, the Architectural Access Board Guidelines were used to assess ADA compliance.

The fields were also evaluated for serviceability (are systems and equipment in good repair and meeting the intended purpose?) and safety. The findings are categorized as they relate to the safety, serviceability, and accessibility of the components. The findings of the assessment led to recommendations for each individual site.

## **2.1. Base Plan Development**

An essential task of the Master Planning effort is the creation of a suitable base plan for each field in AutoCADD to serve as the basis for the schematic planning effort to follow. Gale contacted Town officials to obtain record information and GIS data (assessor's maps, utility maps, topographic maps, and wetland maps) as available. Additionally, we consulted FEMA maps, state soil maps, and aerial mapping available on the MASSGIS web site. Gale produced a suitable base plan for each facility.

These base plans reflect property line and topographic data as available and are sufficient for the Master Planning effort; however, these plans are not suitable for detailed design, and any projects completed as a result of this Master Plan in the future will require a full property line and topographic survey. The results of these more detailed updated surveys may require modifications to the Master Planning assumptions.

## **2.2. Facility Condition Summary**

The individual field assessment reports, provided at Volume 1, detail the general condition of each facility. Additionally, Gale has compiled a listing of short-term maintenance and repair items required at each of the subject sites to address immediate needs. These repairs are required to provide safe, serviceable, and accessible facilities, and are not related to the renovation strategies to be presented. They are summarized as follows:

### **2.2.1. Town Recreation Facilities.**

**2.2.1.1. Spaulding Field.** Spaulding Field affords two (2) little league (60') baseball diamonds with two (2) small (110'x160') soccer fields in the shared outfields. The combination fields are in generally good condition and provide appropriate facilities for the intended level of play. Specific recommendations include:

- Two (2) Baseball Fields (60' Diamond)
  - General maintenance required; i.e., regrading of pitcher's mound, weed removal, etc.
  - Bases and home plates need to be replaced.
  - The stone dust and clay mix base paths, pitchers mounds, and home plate areas should be regraded and supplemented.
  - Weed removal and stone dust installation should be performed within the player's bench areas. Weed removal should also be performed within the limits of the coaches' areas.
  
- Two (2) Multi-purpose Fields (approx. 110'x160' soccer field) (within baseball field outfield area)
  - Turf is in generally good condition.
  - Goals and benches are in good condition.

#### Overall Site Comments:

- Limited field use.

- Concurrent use of ball field and athletic field areas.
- Existing stone dust parking area should be regraded to provide positive drainage and/or pave.
- All of the existing playing fields are in generally good condition with only some minor deficiencies noted.
- Site does not provide ADA access along accessible routes or handicap parking provisions.
- Top surface of timber retaining wall is deteriorating/splintering; top rail should be replaced.
- Existing site takes full advantage of space available.

**2.2.1.2. Main Street Common.** The Main Street Common affords a small, treed area with benches and lawn areas in the Town Center used for passive recreation. Specific recommendations include:

➤ Passive Recreation Area

- There are some sparse areas under the present tree canopies. These areas should be loamed and slice seeded with shade tolerant cultivars.
- Full depth pavement reconstruction of walkways; regrade areas to provide positive drainage.
- Extend pavement up to existing park bench concrete pads; provide 5'x5' pavement area adjacent to pad for wheelchair parking/seating area.
- Consider aesthetic enhancements and provision of additional plant materials and color.

**2.2.1.3. Creely Buchanan Park.** The Creely Buchanan Park parcel is a Town owned parcel of 1-2 acres of open/green space in a neighborhood setting traditionally used for recreational skating in the winter months and as a passive/informal recreational neighborhood park in the summer. Specific recommendations include:

➤ Ice Skating Rink

- The Town survey suggests the prefabricated skating facilities are not always well maintained.
- Site lacks ADA-compliant accessible pathways.
- The overall appearance of this site is good.
- No parking area present, only parallel, on-street parking available.
- Consider enhanced use of the park, such as play structures.

Based on the facility evaluation, it is understood that community groups have informally taken responsibility for the skating rink; however, due to the Town ownership of this land, liability for all activity on this parcel is held by the Town. Based on this and the perception of it being a community asset, it is recommended that the roles and responsibilities of the facility management be transferred to the Recreation Department and incorporated into the Town recreation facilities. We also recommend that the Town study the Baboosic Lake Waterfront area for a potential ice skating facility. See Section 12.0 for recommendations at the Baboosic Lakefront.

**2.2.1.4. Baboosic Lake Town Beach.** The Baboosic Lake Town Beach site is located adjacent to the Baboosic Lake. It houses a wooden concessions/storage building. This building is utilized off-season solely for storage purposes. During the summer months, the building is used to conduct classes, has a concession area for walk-up food sales (limited menu), and has an area for dining/shade provisions. This concession building is in need of some minor renovations and cleaning prior to its opening for the summer season. This is also true of the nearby restroom building, which is of concrete masonry unit (CMU) construction. The playground area that exists on-site is in fair condition, with some safety and maintenance issues that should be confirmed/addressed in the very near future. The adjacent beach/volleyball court area is in fairly good condition, requiring only raking and volleyball net installation. The passive recreation area that exists on-site provides areas of trees for the provision of shade and concrete grills. The stone dust parking area for this site is in fair condition, but does require some improvements. Several survey respondents cited water quality as a reason for not taking advantage of the recreation opportunities at the waterfront. While Gale performed

no direct testing of water quality, the Amherst Recreation Department Director substantiated this community perception. Any further study to waterfront improvements should also focus on addressing the water quality issue prior to making improvements to the site amenities. Specific recommendations include:

➤ Parking Area

- Existing stone dust parking area should be regraded to provide positive drainage, and/or paved.
- Parking area does not provide formal ADA accessible parking. An area should be paved to denote handicap parking spaces and to ensure that the appropriate amount of space is allotted.
- Existing catch basin within area should be examined/cleaned out to ensure proper drainage function.

➤ Volleyball Court Area and Beach

- Beach should be raked prior to opening for the season to distribute sand, grade, and remove debris.

➤ Playground

A cursory examination of the on-site existing playground has been conducted; however, it is recommended that a full playground safety inspection be conducted by a Certified Playground Safety Inspector (CPSI) to determine the existence of any potential safety hazards so they may be addressed. This inspection should be conducted prior to the commencement of any of the following work items identified for this area, so that this work may be completed concurrently:

- Recommend the addition of a four (4) foot high perimeter chain link fence for the purposes of safety.
- Perimeter timber surface containment edging/retaining wall should be replaced; existing is deteriorating/unstable.

- Correct area of use zone for composite structure should be verified/provided to conform with federal playground safety and performance guidelines.
  - Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not accessible.
  - Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.
- Passive Recreation Area (grass/shaded area with concrete grills)
- Concrete grills are spalling and should be replaced.
- Concession/Storage Building
- Cosmetic and general maintenance required prior to opening for the season. This work should include painting the walls, cleaning and sanitizing the entire interior of the building, removal of storage items (docks, lifeguard chair, tables, etc.) from within the building, and removal of seasonal window coverings from the perimeter windows. Storage items from within the building should be relocated to their correct locations (i.e., water docks be placed in the water, lifeguard chair and tables set up and put in their seasonal locations, etc.).
  - The installation of additional shelving for concessions area recommended to improve future organization and increase storage space.
  - **Pipe running across interior of emergency exit door should be removed/relocated from door area. This is a safety hazard and is not in accordance with state building code regulations.**
- Restroom Building

- General maintenance required to improve aesthetics and ensure proper functioning. This should include opening the entrances (removing the seasonal door coverings), cleaning and disinfecting the entire interior of the facility, restocking/filling included amenities/dispensers, and painting the interior.
- Area in front of restroom entrances should be regraded to allow for positive drainage and to prevent ponding.
- Septic system should be inspected/pumped prior to opening restroom building for the season to make certain that the system is ready for the summer season and is functioning properly.

Overall Site Comments:

- Replacement of perimeter chain link fencing is recommended to improve the overall site aesthetics.
- Existing site takes full advantage of space available.

**2.2.1.5. Cemetery Fields.** The Cemetery Fields Site is an environmentally sensitive site. It is located adjacent to Beaver Brook partially within the 100' floodplain area and is a nesting ground to the grasshopper sparrow, which is a state threatened species. This site contains a Little League (60' diamond) baseball field, two (2) soccer fields (approximately 210'x285' and 175'x230' in size) a playground area, and an associated stone dust parking area. This site, upon inspection, was in very good condition, with only minor deficiencies noted. **It will, however, be coming off-line within the next few years; therefore, these venues will have to be replaced at another location(s).**

➤ One (1) Baseball Field (60' Diamond)

- Not Applicable; coming off-line. Annual uses are approximated at 185 and should be fulfilled upon loss of this field.

➤ Two (2) Multi-purpose Fields (1- 210'x285' and 1-175'x230' (approx.) soccer fields)

- Not Applicable; coming off-line. Annual uses are approximated at 250 and should be fulfilled upon loss of these fields.

➤ One (1) Playground

- Not Applicable; coming off-line. The playground is in good condition and should be replaced upon the loss of the Cemetery Field site.

**2.2.1.6. Police EMS Fire Emergency Complex.** The Police EMS Fire Emergency Complex is located on Amherst Street. The community room that was assessed as part of this project is located within the EMS Fire Complex Building. It is utilized for senior activities (i.e., card games, etc.). This room was also utilized for yoga classes; however, the level of effort with setting up and breaking down the tables necessary for card game activities became somewhat burdensome. The yoga classes are currently primarily held at the PMEC building. The community room is in good condition and organized well for the uses/patrons it serves; therefore, no recommendations have been made for this site.

**2.2.1.7. Peabody Mill Environmental Center.** The Peabody Mill Environmental Center (PMEC) building houses educational and environmental programs, yoga classes, and other such programs. Overall, the site is well maintained, in good condition, with only minor deficiencies/recommendations noted. Specific recommendations include:

➤ Building

- The PMEC building is in good condition.
- Perhaps additional programs offered by the Recreation Department can be held within this building, i.e., arts and crafts, zumba classes, etc.

➤ Accessory Structure (Sawyer Cottage)

- Interior of building should be cleaned and sanitized.
- Exterior of building should be examined for obvious obstacles/obstructions along access route, removing

any if present. Area surrounding cottage should be mowed, and brush/trees cut/pruned as necessary.

➤ Accessory Structure (Outdoor Classroom)

- Interior of building should be cleaned, sanitized, and all miscellaneous items that currently exist within the central part of the structure should be removed. The existing closet spaces should be cleaned out, leaving two (2) available for class materials and supplies, and one (1) designated for patrons to utilize for personal item storage during classes.
- Exterior of building should be examined for obvious obstacles/obstructions along access route, removing any if present.

Overall Site Comments:

- There is limited parking available. Additional parking should be added to allow for expanded use of site, i.e., additional environmental programs, arts and crafts, yoga and zumba classes, etc.
- There are adjacent areas for abundant passive recreation use at Joe English Reservation, which is maintained by the Amherst Conservation Commission.

**2.2.2. Town/Amherst Conservation Commission Facilities.**

**2.2.2.1. Joe English Reservation.** The Joe English Reservation is located at the end of Brook Road and contains a trail network of approximately (ten) 10 miles. This area affords activities such as hiking, hunting, snowshoeing and cross-country skiing. The adjacent Peabody Mill Environmental Center (PMEC), operated by the Amherst Recreation Department, houses educational and environmental programs, yoga classes, and other such programs. Specific recommendations include:

➤ Trails - See Section 9.0 of this report.

➤ Overall Site Comments:

- There is limited parking available. Additional parking should be added to allow for expanded use of sites.
- There are areas for abundant passive recreation use at Joe English Reservation.

**2.2.2.2 Beaver Brook Park.** The Beaver Brook Park affords a small passive recreational park in a neighborhood setting, adjacent to Beaver Brook crossing under Manchester Road. The site features open lawn and shade trees with few other improvements, other than a memorial granite bench. Specific recommendations include:

➤ Passive Recreation Area

- Natural turf sparse areas should be loamed and reseeded with shade tolerant cultivars.
- Consider aesthetic enhancements and provision of additional plant materials and color.
- Site does not provide ADA access along accessible routes or handicap parking provisions to make the site available to all whom wish to visit.
- No designated parking for this site. In order to accommodate park patrons, a couple of pull-in paved parking spaces could be constructed within the space available, one (1) of which should be designated as a handicap space. This parking area should be paved due to its proximity to the Beaver Brook environmental resource area.

**2.2.2.3 Bragdon Hill.** The Bragdon Hill site is a former farm located off of Route 101 near the Amherst/Bedford Town Line. The site is utilized for recreational sledding during the winter months. The site is in fair condition, with some maintenance required, and some safety issues to examine. The following recommendations are cognizant of the conservation constraint that restricts use of this land to passive recreation only. Specific recommendations include:

➤ Sledding Hill

- **Existing access culvert should be abandoned; dangerous means of access. Consideration should be given to relocating the parking to the other side of Route 101, adjacent to the sledding hill area for ease of access and improved safety.**
- The existing stone dust parking area should remain, be regraded to provide positive drainage.
- Wooden sitting area/structure should be repainted to improve aesthetics and to cover areas of graffiti. Bench area should be repaired and surrounding area cleared of weeds and brush.

### **2.2.3. Amherst School Facilities.**

**2.2.3.1. Davis Lane Tennis Courts.** The Davis Lane tennis courts are on Amherst School District property but are currently maintained by the Amherst Recreation Department. The site includes three (3) standard geometry-compliant asphalt tennis courts with acrylic surfacing intended for recreational play. The courts are moderately cracked due to age-related asphalt shrinkage, but are moderately serviceable. Without repair/reconstruction, they will quickly deteriorate further and become unserviceable. As most crack repair methods on asphalt courts are ineffective, we recommend pulverization and reconstruction. Specific recommendations include:

#### ➤ Three (3) Standard Tennis Courts

- Tennis courts should be pulverized and reconstructed. This will correct surface planarity, slope, and drainage of courts.
- Tennis court chain link fence fabric and bottom tension wire needs replacement due to condition of current fencing.
- Site does not provide ADA access along accessible routes or handicap parking provisions.

- Existing stone dust parking area should be regraded to provide positive drainage, and/or paved when courts are rebuilt.
- Existing site takes full advantage of space available.

**2.2.3.2. Amherst Middle School.** The Middle School site contains two (2) softball fields with a 240'x180' field hockey field located within the outfield area of the ball fields. The combination fields are in fairly good condition, with only minor to moderate maintenance necessary. Two (2) full basketball courts are located on the outskirts of the Amherst Middle School's parking area. The asphalt surface of these courts is severely cracked and components of two (2) of the goals (rim and net) are in need of replacement. There are two (2) standard geometry-compliant asphalt tennis courts located adjacent to the Bean Property baseball field area. The courts are moderately cracked due to age-related asphalt shrinkage and moderately serviceable. Without repair/reconstruction, they will quickly deteriorate further and become unserviceable. Most crack repair methods on asphalt courts are ineffective and we recommend pulverization and reconstruction. Specific recommendations include:

➤ Two (2) Softball Fields

- General maintenance required; i.e., minimal grading of pitcher's mound, weed removal, etc.
- Field overuse (Annual usage of fields exceeds threshold for good field conditions with optimal performance)

➤ One (1) Multi-purpose Field (approx. 240'x180' field hockey field) (within softball fields outfield area)

- New field hockey goals should be installed.
- Field overuse (Annual usage of fields exceeds threshold for good field conditions with optimal performance)

➤ Two (2) Standard Tennis Courts

- Tennis courts should be pulverized and reconstructed. This will correct surface planarity, slope, and drainage of courts.

- Two (2) Full Basketball Courts
  - Pavement is cracking. Full-depth pavement reconstruction recommended.
  - Courts are currently not surfaced. Surfacing provides improved court performance and an improvement in terms of aesthetics. The surfacing of these courts is recommended.
  - At a minimum, it is recommended that one (1) basketball rim and net be replaced.

Overall Site Comments:

- Concurrent use of ball fields and athletic field.
- Site does not provide ADA access along accessible routes or handicap parking provisions.

**2.2.3.3. Bean Property.** The Bean Property is located off Boston Post Road adjacent to the Souhegan High School. The site consists of three (3) soccer fields, two (2) being approximately 195' x 290', and the other 150'x230' in size. The site also contains one (1) Little League (60' diamond) baseball field. All fields are irrigated by means of well water with Rain Bird irrigation heads. All of the sites included within this report that are irrigated utilize Rain Bird irrigation heads, with the exception of the Souhegan High School, which utilizes Toro irrigation heads. The fields at this location are in good condition, with only minor improvements suggested. Specific recommendations include:

- One (1) Baseball Field (60' Diamond)
  - Baseball field is in good condition. No work/changes recommended for this field.
  - This field may be utilized more to help offset the baseball field coming off line at the Cemetery Field site.
  
- Three (3) Multi-purpose Fields (2-195'x290' (approx.) soccer fields, 1-150'x230' (approx.) soccer field)

- Fields are in good condition. No work/changes recommended for these fields.
- Wide open space allows for a variety of playing field dimensions and orientations.

Overall Site Comments:

- Site does not provide ADA access along accessible routes or handicap parking provisions.
- The site currently contains a grass slope in between the rectangular multi-purpose athletic fields and the baseball field. This area may be utilized as a spectator seating area; however, additional seating is recommended. No formal spectator seating present.
- The site currently makes use of all available space.

**2.2.3.4. Clark School.** The item examined at the Clark School was a multi-purpose room located within the school building, which is utilized by the school for dual purposes, as a gym and a cafeteria with the playground area, located at the rear of the parcel. Specific recommendations include:

➤ Playground

A cursory examination of the on-site existing playground has been conducted; however, it is recommended that a full playground safety inspection be conducted by a Certified Playground Safety Inspector (CPSI) to determine the existence of any potential safety hazards so that they may be addressed. This inspection should be conducted prior to the commencement of any of the following work items identified for this area so that this work may be completed concurrently:

- Correct area of use zone for composite structure should be verified/provided to conform to federal playground safety and performance guidelines.
- Existing surfacing material should be verified and brought up to correct depth per maximum fall

height. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not accessible.

- Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.
- **Playground contains sharp edges and protruding bolt connections which pose a potential safety hazards and should be corrected.**
- Existing swing support is missing a cover/cap; it should be replaced to avoid insect nesting or ponding of water for mosquito breeding.
- **Small wooden playhouse should be removed from the playground; it is deteriorating and appears unsound. It is a potential safety hazard.**

➤ Multi-purpose Room

- The multi-purpose room is in good condition and does not require any work and/or changes. Space can perhaps be utilized for future Recreation Department program offerings, i.e., arts and crafts, ballroom dancing, yoga and zumba classes, etc.

**2.2.3.5. Wilkins School.** The Wilkins Elementary School site is located at 80 Boston Post Road. It contains two (2) separate athletic areas at the rear of the parcel, which are referred to as Lower Wilkins and Upper Wilkins. The Lower Wilkins area contains a playground, two (2) paved half basketball courts, one (1) paved full basketball court, and a multi-purpose athletic field area, striped for football. The Upper Wilkins area contains a large athletic field area in good condition, which is striped for football and soccer. This area is accessed from the Lower Wilkins area via a wooden stairway leading up to this area, or via the adjacent stone dust parking area. Specific recommendations include:

**Lower Wilkins Field Area**

- One Multi-purpose Field (160'x360' football field)
  - Field overuse (Annual usage of fields exceeds threshold for good field conditions with optimal performance)
  - Athletic field area is currently not irrigated. No irrigation results in poor development of any seed planted on-site. An irrigation system should be installed to substantiate the growth of any new seed that is installed.
  - Existing field is in poor condition; turf is patchy.
  - Existing playing field needs to be topdressed, fertilized, reseeded, and regrown to eliminate bare spots.
  - New football goals needed due to the poor condition of the existing goals.
  - New spectator seating recommended due to the poor condition of the seating that currently exists within this area.
  
- One (1) Full Basketball Court & Two (2) Half Basketball Courts
  - Pavement cracking. Full depth pavement reconstruction recommended.
  - There is no 10' high perimeter fencing for ball containment and safety purposes; it is recommended that one be installed at the full basketball court location.
  - Courts are currently not surfaced; surfacing provides improved court performance and an improvement in terms of aesthetics; the surfacing of these courts is recommended.
  - One (1) half court is not serviceable due to missing basketball backboard, hoop, and net; new replacement goal equipment should be installed.

➤ Playground

A cursory examination of the on-site existing playground has been conducted; however, it is recommended that a full playground safety inspection be conducted by a Certified Playground Safety Inspector (CPSI) to determine the existence of any potential safety hazards so that they may be addressed. This inspection should be conducted prior to the commencement of any of the following work items identified for this area, so that this work may be completed concurrently:

- Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not accessible.
- Does not contain surface containment edging. If loose fill surfacing is to be utilized, recommend installation of edging to contain surfacing/provide ease of maintenance.
- Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.

**Upper Wilkins Field Area**

➤ One (1) Multi-purpose Field Area (160'x340' approx.) football field or two (2) soccer fields (entire field area is approx. 380'x360' (approx.))

- Field overuse (Annual usage of fields exceeds threshold for good field conditions with optimal performance)
- Athletic field area is currently not irrigated. No irrigation results in poor development of any seed planted on-site. An irrigation system should be

installed to substantiate the growth of any new seed that is installed.

- Slope protection recommended for the purposes of safety/liability. Recommend the installation of a chain link fence or guard rail along the top of slope line. If chain link fence is the selection of choice, fencing can also assist in stray ball containment.
- Replacement of chain link fencing, located adjacent to existing stone dust parking area, recommended due to the fair to poor condition of the existing fencing.
- Slope in between existing parking area and field area may be utilized for the purposes of spectator seating.
- Wide open space allows for a variety of playing field dimensions and orientations.
- Existing stone dust parking area should be regraded to provide positive drainage and/or paved.
- Parking area does not provide formal ADA accessible parking. An area should be paved to denote handicap parking spaces and to ensure that the appropriate amount of space is allotted.

Overall Site Comments:

- Site does not provide ADA access along accessible routes to fields.

**2.2.4. Souhegan High School Facilities.** There are nine (9) individual athletic fields and a fitness trail at the high school complex distributed throughout these five (5) sites.

- Front Fields
- Simeon Wilson Field
- Stadium Track and Field
- Back Fields
- Fitness Trail

- Front Fields – Two Multipurpose Fields (approx. 180' x 300' each)
  - Fields are generally in fair condition with localized worn patches.
  - Field overused and not rested.
  - Fields irrigated.
  - Playing fields need to be top-dressed, fertilized, reseeded and re-grown to eliminate bare spots.
  - Open space allows for a variety of playing field dimensions and orientations.
  - Damaged section of perimeter fencing needs to be repaired (reset fabric and wooden rails).
  
- Simeon Wilson Field – Softball Field and Multipurpose Field (approx. 160' x 360')
  - The multipurpose field is in poor condition, with weak growth density, areas devoid of turf, and on the verge of becoming unsafe for use.
  - Field overused and not rested.
  - Playing field needs a complete field renovation. Field needs to be aerated to relieve compaction, top-dressed, fertilized, reseeded, and re-grown to eliminate bare spots.
  - Softball skinned infield has significant weed growth that needs to be removed. A new infield mix containing a good mix of silt and sand to increase drainage through material is needed.
  - New bases, pitching rubber, and home plate should be installed; present ones are in fair to poor condition.
  - The football field/portable football goals extend to the infield area of the softball field, allowing for infield area damage/infield mix displacement.
  - No ADA accessible walkways to fields and spectator seating.

- Wooden planks at stands need to be inspected and repaired/replaced as needed.
- General maintenance should be performed to existing press box to improve the aesthetics and effectiveness of this structure.
- Perimeter chain-link fence replacement due to poor condition of existing.
- Improve sports lighting by increasing foot-candle output of fixtures (current conditions for softball night games are less than ideal).

➤ Stadium Field (approx. 180' x 360') and Track (400m)

- This field is in poor condition due to damage to the root zone, and is on the verge of becoming unsafe for use.
- Poor/slow drainage in certain areas of the field; heavily compacted soils.
- Limited use of field due to above mentioned conditions. This burdens surrounding fields with additional uses.
- Track surfacing heavily worn and nearing end of useful service life. Should plan on a complete track reconstruction, rather than resurfacing.
- No ADA accessible routes to field; spectator seating is not ADA compliant.

Track Events and Throwing Venues

- Field event maintenance required (i.e. remove weeds, repair discus cage, rework sand pits, etc.).
- Javelin running lane has worn out turf and depressions. Running lane should provide consistent surface. Recommend a paved running lane.

➤ Back Fields – Two (2) Baseball Fields and Two (2) Multipurpose Fields

- The multipurpose fields are in generally in fair condition with localized worn patches.
- Field overused and not rested.
- Areas of fields (around goals and at center field) need to be aerated to relieve compaction, top-dressed, fertilized, reseeded, and re-grown to eliminate bare spots.
- A new infield mix containing a good mix of silt and sand to increase drainage through material is needed.
- General maintenance required (i.e. re-grading of pitcher's mound, weed removal, etc.).
- No ADA accessible walkways to the fields and spectator seating.

➤ Fitness Trail

- Trail user groups shall be clearly defined due to the potential safety hazards associated with an outdoor fitness trail.
- General maintenance required (i.e. clearing trail of limbs, rocks, tripping hazards, etc.)
- Trail signage noting safety rules, length of trail, and route map should be implemented if trail is to be usable by the public.
- Distinction between the SHS Fitness Trail and the Ropes Course should be clear and marked. Ropes course safety hazards and restriction shall be posted to keep fitness trail users from misusing the equipment.

Overall, the high school fields are in fair to poor condition. A majority of the fields have deficiencies in similar areas, which include little to no resting period (essential to turf growth and establishment), worn turf with damaged root zone, limited spectator seating, and ADA accessibility.

## 2.3. Field Demand Conclusions

**2.3.1. Rest Period.** All heavily used athletic fields require a 30-45 day rest period during an active growth period in the fall or the spring. This allows the predominately blue grass to repair itself by rhizome propagation and “re-knit” the rootzone. This process does not take place during the summer when cool weather grasses like Kentucky blue grass are dormant. This is a significant challenge for virtually all public school and municipal organizations.

The Amherst fields sustain heavy to very heavy use, and virtually none of these fields have a spring or fall rest period. Only one (1) of the fields at the Cemetery Field Site, the Lower Wilkins Field, and the fields at the Spaulding Field site appear to have a rest period. The majority of the remaining fields do not have a rest period in the spring or fall including the most heavily used fields at Souhegan High School.

**2.3.2. Inclement Weather Policy.** It should be noted that it only takes playing once on a very wet field to destroy the turf root zone for that season. An effort must be made not to play games or even practice on fields that are excessively wet. Based on the conclusion that the Amherst fields sustain heavy to very heavy use, an Inclement Weather Policy is strongly recommended as a management tool for preventing damage to fields in the event of inclement weather.

Currently, the Town of Amherst manages use of the fields under a rule that prohibits play when standing water is present. Teams scheduled to use the fields on weekends are contacted in advance by the Recreation Director to inform the team coordinator of any field closings due to forecasted inclement weather. An announcement of these closings is also posted on the Recreation Department website and through social networking accounts. While this method is somewhat successful, it remains a challenge to prevent use of fields in the instance of unscheduled play, after hours use, and in the case of unforecasted inclement weather conditions. With the Amherst fields sustaining heavy to very heavy use, it can be challenging to maintain team schedules while also prohibiting play as necessary. At the same time, the heavy use of fields contributes even more to the importance of forbidding field use in wet conditions.

The enforcement of a restrictive inclement weather policy by field managers is the singular best management practice available. A typical policy addresses the importance of not playing on fields during wet conditions, as it protects the safety of players, condition of fields, serviceability of facilities, and is fiscally responsible to taxpayers. The policy should outline condition assessment procedures and the responsibility of the Recreation Department, athletic team staff, and players as it relates to inclement weather and field use. Gale Associates has provided a sample Inclement Weather Policy as Enclosure 1.

**2.3.3. Demand.** An aggressively maintained, irrigated field that is rested for up to a third of the fall or spring growing season can theoretically sustain up to 250 team-uses per year and still maintain a high quality and safe athletic turf. A scheduled team use is a 2-hour game or practice involving 15-20 athletes. For most municipal fields, which are less well maintained, seldom rested, and often poorly watered, a more realistic level of use is 200 scheduled team uses per year.

The field use/demand study identified all users of all fields in the community, with numbers verified by individual user groups and schools. The actual field-by-field demands are provided in the Volume 1 report. As may be seen from the demand study results, thirteen (13) of seventeen (17) fields experience at or over 235 uses per year. Of these, ten (10) of the fields experience over 250-team uses per year and are not granted a rest period during the growing season. Some, like the Souhegan High School rear fields and the Simeon Wilson site, see over 500 annual uses.

The field use/demand data does not take into account the pending loss of fields at the Cemetery Field site, which is soon to come to fruition. This closing will have a significant impact on these numbers. We conclude that even given optimal maintenance efforts and growing conditions, the demands on a number of the playing fields currently in use exceed, or will soon exceed, the level at which is it possible to sustain safe, acceptable quality athletic facilities.

There are approximately 5,565 scheduled team events scheduled on Amherst athletic fields annually. These are distributed over a population of seventeen (17) fields. Some of these fields are combination fields in which the outfield of a baseball/softball field serves as a rectangular sports field, as well. As a result, the average field in the community experiences 327 scheduled team events (games or practices) per year. This is well above the

recommended maximum of 250 events and much more than the 200 events that these fields can logically sustain given the current level of maintenance, irrigation and resting policy.

With a population of seventeen (17) fields, the Town can logically sustain 3,400 demands with current resting and maintenance policies, resulting in a field deficit of some 2,165 uses or ten (10) field equivalents. This is admittedly a gross estimate and does not take into consideration the type of fields (ball fields or rectangular) most required, nor does it distinguish between youth sports and school sports; however, it is a valuable data point as we begin to formalize the Planning Program below.

**2.3.4. Field Demand Impact – Equivalent Team Uses.** While the number of scheduled uses is important to gain an understanding of field space adequacy and turf quality, it can be misleading, as scheduled uses do not always correlate to damage to the turf condition. Obviously, high school football is more deleterious to turf condition than softball, as larger, more competitive athletes cause higher stress loads on the playing surface. Also, different sports cause damage to turf in different areas. For example, football causes turf to wear between the hash marks, while soccer and lacrosse cause wear at the goals, at center field and along the sidelines. As a result, we must account not only for the number of uses, but for the type of use and age of the participants, by applying an impact factor to the raw scheduled use data.

We have somewhat arbitrarily assigned an impact factor of 1.0 to women's soccer as the average activity in terms of field impact and deterioration. We assume that high school football is twice as damaging to the turf and assign it a 2.0 impact factor accordingly. Other impact factors for various sports were assigned based on assumed turf impact and multiplied by the number of scheduled uses for each type activity to yield the equivalent team uses in terms of turf damage and impact.

While this approach is arguably somewhat imprecise, it is a definite improvement over the consideration of raw scheduled use data alone, as it accounts for differences in the impact on turf condition of the various uses of the athletic fields (see Enclosure 2).

The equivalent scheduled team use data for fields which routinely sustain use for sports such as men's lacrosse or football obviously

tend to be higher than actual scheduled uses, while those for fields which are routinely used for little league baseball tend to be less.

### **Section 3.0 – Synopsis of Needs Survey**

One of the keys to the development of a comprehensive recreation needs assessment for the Town of Amherst is to assess the perceptions of community stakeholders relative to recreation services, programs, and facilities available to them. In order to complete such an assessment, Gale prepared, fielded and analyzed a recreation needs survey and conducted two (2) sensing sessions with various recreation stake holders.

In a web-based survey, residents of the Town were asked to complete an Amherst Recreation Questionnaire. A total of 960 survey responses were received. This is a remarkably high response rate, which may be indicative of the relative importance placed on recreational needs within the community. A complete copy of this survey, the raw survey results, and Gale's analysis of those results were provided under separate cover as Volume 2 of this master plan study. The findings and conclusions are summarized below.

#### **3.1. Conclusions and Recommendations**

With nearly 1000 responses, the Amherst recreational needs survey provides valuable insight into the perceptions of the various recreational constituencies and stake holders. These conclusions may be somewhat skewed however, given the narrow demographics of the participants, with over 92% being adults and only token participation by school age children, teenagers, young adults or elders.

The survey assessed attitudes, opinions and priorities in a number of different ways. From question-to-question the trends, and hence the conclusions, were remarkably consistent. As a result, we believe there is strong consensus, at least within the sampled age group, in the following conclusions:

**3.1.1. Athletic Playing Fields.** The singular most important recreational need throughout the town is for additional playing fields, both baseball/softball fields and multi-purpose rectangular fields. The existing population of fields is inadequate to effectively meet current demands and the pending loss of the town's most important recreational field complex at Cemetery Field magnifies this need. The demand for additional fields was by far the most compelling response to virtually all questions related to desired program or facility enhancements.

It is recognized by most of the Community that lights, allowing for extended use of existing fields, may mitigate the shortage of field space. There was strong consensus that there was a need for lights at the high school and for youth football. It should be recognized, however, that turf quality will suffer further as increased play is accommodated on the already overtaxed lighted fields.

In response to the field shortage, there is a widely held opinion that synthetic turf, despite its large initial cost, may be appropriate at the high school. Many respondents to the survey opined that lights are their highest priority enhancement to Amherst recreational facilities, and a significant amount indicated interest in synthetic turf fields. It should also be noted that there was a smaller but significant number of residents that expressed strong oppositions to either lights or synthetic turf or both. While we recommend strong consideration be given to both lights and synthetic turf as a means to mitigate the chronic shortage of field space, these proposals should be put forward in an environmentally sensitive, sustainable fashion, should include effective public information efforts, and should anticipate some opposition given the expense and perceptions. See Section 6.7 for information on Athletic Lighting Permitting Requirements.

**3.1.2. Trail Network.** There is a strong demand for improved and/or additional trail facilities throughout the town to meet a number of diverse needs. These include hiking, walking, jogging, biking, snow shoeing, and off-road recreational vehicles. Of these, the biggest concerns appear to be the need for bike trails.

There is a perception that sufficient trails may already exist, but they are perhaps poorly publicized, poorly marked, poorly mapped, or have inadequate trail head facilities such as parking, signage, rest rooms or shelter. We recommend a dedicated project aimed at trail facility publicity and improvements. It appears that for relatively small expenditures, the Town can respond to a well articulated demand. This report discusses the Town trail program in more detail in Section 9.0 below.

In a related finding, the survey identified an important need for bike lanes and/or sidewalks throughout the Town itself. While Gale did not assess the need for dedicated bike lanes and/or sidewalks along specific travel ways, we did note a strongly held opinion that the town should invest in the development of bike friendly roadways to facilitate alternative transportation within the Community. We recommend that the DPW complete a study

specifically addressing this concern and formulae cost effective ways in which to address this perceived deficiency.

**3.1.3. Gymnasium Space.** Currently there is an acute shortage of indoor gymnasium space, which was highlighted in the survey results. The ability to host indoor youth sports, intramurals and active adult programs is severely limited by gymnasium availability. This perception of the Community was also clearly substantiated in Gale's Souhegan High School Needs Assessment. It appears that the logical place to create expanded gym facilities available for both school and community use is at the existing high school. The Souhegan High School recommendations section includes information on expanded gymnasium facilities as suggested in the SHS Master Plan. See Section 6.2.5.4 for information on these improvements.

In a related finding, there was strong consensus regarding the need specifically for additional basketball court space. It was difficult to discern from the survey results whether this was a demand for indoor or outdoor courts, or both. Again, this was a perception substantiated in Gale's Souhegan High School Needs Assessment. We recommend that in addition to increased gymnasium space the Town construct up to two (2) new outdoor basketball courts with fencing and acrylic surfacing. This could be accomplished at the high school.

**3.1.4. Specialty Indoor Facilities.** There are a number of identified needs for other specialized indoor recreational spaces such as swimming, skating, indoor tennis, and fitness that are being met in-part by local private facilities. Both individual families and some school programs pay-as-you-go for the use of these facilities. Unfortunately, a number of survey respondents cited the cost of such facilities as prohibitive and their recreational needs remain unmet. There is strong community interest in a recreation center that houses a community pool and perhaps a sheet of ice. It could also host the senior center and fitness facilities. Such a facility obviously implies a large capital outlay and significant operating costs. We recommend that the Town complete a formal feasibility study for such a facility to assess the development costs and operating pro forma.

**3.1.5. Baboosic Lake Improvements.** It is apparent that the waterfront facilities at Baboosic Lake are considered to be an important but underutilized recreational facility. Throughout the survey there were references to numerous and diverse waterfront facility needs. We recommend that the Town complete a detailed

facilities assessment of the entire complex and define a program of improvements that make this a more attractive resource. Several survey respondents cited water quality as a reason for not taking advantage of the facilities. Prior to making improvements to the site amenities, a water quality study should be conducted as part of the improvements planning effort. Additional amenities improvements might include beach and bottom improvements, concessions and restroom improvements, boat launch enhancements, a shelter/pavilion, etc. In conjunction with this program of enhancements, there should be a deliberate community outreach effort to publicize this facility and the services it affords.

**3.1.6. Age Based Services.** It appears that most underserved demographic age groups in the community are teenagers and young adults. It is apparent that many members of the community have “outgrown” the recreational program offerings. Those who are just out of school, and those who are in middle and high school, but not members of formal sports or clubs, may have recreational needs that are unmet. We recommend that the recreation department make a concerted effort to identify programs and facilities that attract these age groups and target them in the outreach effort.

**3.1.7. Recreation Based Education Programs.** While not as strong as the consensus related to additional field space, there is a strong demand in the community for expansion or enhancement of the recreational education programs, targeted mainly at adults. These programs fall mainly into three (3) groupings: arts and crafts, the performing arts, and adult education. There was broad support for programs in each of these areas. Again, there is common perception that the programs offered may be adequate, but poorly publicized. We recommend continued emphasis on educational programs like those offered in the past, but with broader offerings, flexible schedules, and perhaps more effective publicity and information. It appears that the P MEC is underutilized and with improvements, may serve, along with school facilities, as the hub of the recreational education offerings.

**3.1.8. Dog Parks / Skate Parks.** There is little support in the Town for either a dog park or skate parks. Additionally, given the rural character of the community, there is little formal support for community gardens. While there may be individuals which support each of these potential developments with strongly held opinions, it does not appear that any of them garner much support.

#### **Section 4.0 – Summary of Demographics Report**

A January 2010 Demographics Study, prepared for Souhegan High School as part of a facilities study by Gale, was conducted to forecast high school population of students in grades 9-12. Although the purpose of the study is to predict future enrollment of this specific age group, the results of the study may be useful in Town recreation planning.

The report indicates an overall decline in high school population throughout a 10-year period ranging from 2010 to 2020. However, a slight temporary increase in enrollment occurs within that time frame over the 2013-2015 school years. The significance of these numbers is small, with a resulting overall decline of only 111 total students. It is also noted that slight positive growth in the population of children ages 0-5 is expected to occur in Amherst between 2015 and 2020. This will be the only positive growth occurring at this age range for the first time in twenty (20) years. The main conclusion of the demographics study is that few changes in the Town Recreation Program or facilities will be driven by substantial change in school age demographics, which remain statistically stable throughout the 20 year planning horizon.

### **Section 5.0 – Athletic Field Program Requirements**

Based upon Gale’s evaluation of the town’s athletic fields, the quantification of demands for athletic fields, the expressed need for additional athletic fields voiced at sensing sessions, and the high priority given to additional athletic fields reflected in the town-wide survey results, it is readily apparent that additional athletic field space is the most compelling recreational facilities need within the Town of Amherst. Currently, in order to limit the amount of play on each field to somewhere around 200-250 scheduled team uses per year, and in order to afford spring or fall rest periods to most key fields, it appears that the town requires an additional eight (8) to ten (10) athletic fields.

The Cemetery Field complex currently provides a little league baseball field and two (2) undersized multi-purpose rectangular fields, along with a playground. Together these three (3) fields accommodate approximately 700 scheduled team uses each year. The Town has decided to take the Cemetery Fields off line in the next year or two and return control of the parcel to the Cemetery Commission. This loss will clearly exacerbate an already inadequate inventory of field space. Based on the numerical analysis of demand by type field, the anticipated loss of the Cemetery Fields, and input from local officials, we conclude that the Town should consider the development of the following:

Priority 1:     4 Multi-Purpose Rectangular Fields  
                  1 Adult (90 foot) Baseball Field  
                  2 Little League (60 foot) Baseball Fields

Priority 2:     2 Multi-Purpose Rectangular Fields

1 Adult (90 foot) Baseball Field

TOTAL: 10 New Athletic Fields

With improvements to the durability of existing fields, maintenance of an effective inclement weather policy, implementation of rest periods, and re-distribution of demand to less utilized fields (e.g. Spaulding), the creation of eight (8) to ten (10) new fields will enable the Town to support its current and projected sports programs without chronic detriment to facilities, and the serviceability and safety deficiencies that result.

**Section 6.0 – Proposed Athletic Facilities Improvements**

Beyond the immediate field maintenance requirements noted above, Gale evaluated each location for its potential for redevelopment and/or expansion to better meet the needs of the community. Gale assessed each existing recreational parcel and several undeveloped town-owned parcels to determine their potential for expanded recreational facilities, considering available topography, wetlands and other environmental constraints, flood plain, zoning, geology, critical habitat, etc.

Redevelopment may consist of construction of athletic fields, new tennis and basketball courts, re-orientation of existing fields, complete field renovation and/or reorganization of existing fields, strategic placement of synthetic turf at fields with heaviest use, new athletic lighting and increased parking. The objective of this planning effort was to define a series of projects that would accomplish the planning program of eight (8) to ten (10) fields or field equivalents as defined above.

**6.1. Town Recreation Facilities**

**6.1.1. Creely Buchanan Park.** The Creely Buchanan Park parcel is a small open/green space, 1-2 acres, in a neighborhood setting traditionally used for recreational skating in the winter months and as a passive/informal recreational neighborhood park in the summer. As a result of our surveys and sensing sessions it appears that this small facility is a Town asset, and it is unclear who maintains and operates the skating rink. We recommend that the Town recreation assume responsibility for this venue and provide more consistent maintenance of the ice sheet in winter.

**6.1.2. Baboosic Lake Town Beach.** See report section 13.5.

**6.1.3. Cemetery Fields.** The Cemetery Fields Site is an environmentally sensitive site. It is located adjacent to Beaver Brook, is located partially within the 100' floodplain area, and is a

nesting ground to the grasshopper sparrow, which is a state threatened species. This site contains a Little League (60' diamond) baseball field, two (2) soccer fields, approximately 210'x285' and 175'x230' in size, a playground area, and an associated stone dust parking area. This site, upon inspection, was in very good condition, with only minor deficiencies noted. It will, however, be coming off-line within the next few years; therefore, these venues will have to be replaced at another location(s). We have not offered repair or renovation strategies related to this parcel as it is scheduled to be taken out of recreation service.

**6.1.4 P MEC.** Please see report Section 13.0

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>	<u>Cost</u>
Middle Street Skating Rink	<ul style="list-style-type: none"> <li>• Ownership Clarity</li> </ul>	No Change	N/A
Baboosic Lake Town Beach	<ul style="list-style-type: none"> <li>• Water Quality Study</li> <li>• Building Repairs</li> <li>• Parking Improvements</li> <li>• Passive Rec. Improvements</li> </ul>	No Change	\$170K- \$190K
Cemetery Fields	<ul style="list-style-type: none"> <li>• None – coming offline</li> </ul>	-2 Soccer Fields -1 Baseball Diamond -1 Playground	N/A

**6.2. Town/Amherst Conservation Commission Facilities**

**6.2.1. Joe English Reservation** Please see report Section 9.3 & 13.0.

**6.2.2. Beaver Brook Park.** The Beaver Brook Park affords a small passive recreational park in a neighborhood setting, adjacent to Beaver Brook crossing under Manchester Road. The site features open lawn and shade trees with few other improvements, other than a memorial granite bench. Specific recommendations include:

- Natural turf sparse areas should be loamed and reseeded with shade tolerant cultivars.

- Consider aesthetic enhancements and provision of additional plant materials and color.
- Site does not provide ADA access along accessible routes or handicap parking provisions to make the site available to all that wish to visit.
- In order to accommodate park patrons, a couple of pull-in paved parking spaces could be constructed within the space available, one (1) of which should be designated as a handicap space. This parking area should be paved due to its proximity to the Beaver Brook environmental resource area.

Estimated Cost of Construction: \$5-10,000

**6.2.3. Bragdon Hill.** The Bragdon Hill site is a former farm located off of Route 101, near the Amherst/Bedford Town Line. A small portion of the site is utilized for recreational sledding during the winter months. The site is suitable for the intended purpose and in fair condition, with some minor maintenance being required,

Access to the site from the parking area is by means of a constrained culvert, which appears to present safety and personal security problems. Consideration should be given to locating the parking for the site to the other side of Route 101, adjacent to the sledding hill area for ease of access and improved safety and enhanced ADA accessibility.

- The existing stone dust parking area should remain to support the passive recreation opportunities on that side of the Bragdon Hill parcel. It should be regraded to provide positive drainage.
- Wooden sitting area/structure should be repainted to improve aesthetics and to cover areas of graffiti. Bench area should be repaired and surrounding area cleared of weeds and brush.
- The majority of the Bragdon Hill parcel is apparently under a conservation easement or otherwise restricted to passive recreation, and cannot be developed otherwise.

Estimated Cost of Construction. \$75,000 – 90,000 for revised parking and access.

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>	<u>Cost</u>
Joe English Reservation	• Trail Improvements	No Change	\$30K- \$50K
Beaver Brook Park	• Maintenance & Parking • Park Enhancements	No Change	\$5K- \$10K
Bragdon Hill	• Revised Parking • Access Enhancements	None	\$75- \$90K

### 6.3. Amherst School Facilities

**6.3.1. Spaulding Field.** Spaulding Field affords two (2) little league (60') baseball diamonds with two (2) small (110'x160') soccer fields in the shared outfields. The combination fields are in generally good condition and provide appropriate facilities for the intended level of play. Beyond general maintenance, we do not recommend renovation, and there is no potential for expansion or reorganization. Specific maintenance recommendations include:

- General maintenance required, i.e., regrading of pitcher's mound, general weed removal, etc.
- Bases and home plates need to be replaced.
- The stone dust and clay mix base paths, pitchers mounds, and home plate areas should be regraded and supplemented.
- Top surface of timber retaining wall is deteriorating/splintering; top rail should be replaced.

Estimated Cost of general maintenance: \$5-10,000.

**6.3.2. Davis Lane Tennis Court Parcel.** The Davis Lane tennis courts site includes three (3) standard geometry-compliant asphalt tennis courts with acrylic surfacing intended for recreational play. The courts are moderately cracked due to age-related asphalt shrinkage and moderately serviceable. Without repair/reconstruction, they will quickly deteriorate further and become unserviceable. Most crack repair methods on asphalt courts are ineffective, and we recommend pulverization and reconstruction. Specific recommendations include:

#### Three (3) Standard Tennis Courts

Tennis courts should be pulverized and reconstructed. This will correct surface planarity, slope, and drainage of courts.

Tennis court chain link fence fabric and bottom tension wire needs replacement due to condition of current fencing.

Site does not provide ADA access along accessible routes or handicap parking provisions.

Existing stone dust parking area should be regraded to provide positive drainage, and/or paved when courts are rebuilt.

Estimated Cost of Construction: \$90,000.

**6.3.3. Amherst Middle School.** The Middle School site contains two (2) softball fields with a 240'x180' field hockey field located within the shared outfield area of the ball fields. Despite heavy use, the combination fields are in fairly good condition, with only minor to moderate maintenance necessary.

Two (2) full basketball courts are located on the outskirts of the Amherst Middle School's parking area. The asphalt surface of these courts is severely cracked and components of two (2) of the goals (rim and net) are in need of replacement.

There are two (2) standard geometry-compliant asphalt tennis courts located adjacent to the Bean Property baseball field area. The courts are moderately cracked due to age-related asphalt shrinkage and moderately serviceable. Without repair/reconstruction, they will quickly deteriorate further, and become unserviceable. Most crack repair methods on asphalt courts are ineffective and we recommend pulverization and reconstruction.

With the possible exception of a single new rectangular field (see Section 6.3.2), there are no other opportunities for expanded facilities or site reorganization at the Middle School parcel. Specific repair and renovation recommendations include:

Two (2) Softball Fields / One (1) multi-purpose rectangular field

- General maintenance required, i.e., regrading of pitcher's mound, weed removal, etc.
- Skinned infields require regrading/supplementing with clay / stonedust infield mix.

Two (2) Standard Tennis Courts

- Tennis courts should be pulverized and reconstructed. This will correct surface planarity, slope, and drainage of courts.

#### Two (2) Full Basketball Courts

- Pavement cracking. Full-depth pavement reconstruction recommended.
- Courts are currently not surfaced. Surfacing provides improved court performance and an improvement in terms of aesthetics; the surfacing of these courts is recommended.
- At a minimum, it is recommended that one (1) basketball rim and net be replaced.

Estimated Cost of Construction \$ 125,000 – 135,000

**6.3.4 Bean Property Fields.** The Bean Property is located off of Boston Post Road, adjacent to the Souhegan High School. The site consists of three (3) soccer fields, two (2) being approximately 195' x 290', and the other (1) 150'x230' in size. The site also includes one (1) Little League (60' diamond) baseball field. All of these fields are irrigated by means of well water with Rain Bird irrigation heads and controller. All of the sites included within this report that are irrigated utilize Rain Bird irrigation heads, with the exception of the Souhegan High School, which utilizes Toro irrigation heads. The fields at this location are generally in good condition, despite exceptionally high demands with only minor improvements suggested. Other than some consideration of ADA access and more formal accommodation for spectator seating, and other amenities, there are no recommendations for either repairs or renovation to these fields. Also, the parcel does not afford opportunities for either expansion or reconfiguration to better meet the needs of the Town.

**6.3.5. Clark School.** The items examined at the Clark School was a multi-purpose room, located within the school building, that is utilized by the school for dual purposes; as a gym and a cafeteria and the playground area, located at the rear of the parcel. Specific recommendations include:

Playground. A cursory examination of the on-site existing playground has been conducted; however, it is recommended that a full playground safety inspection be conducted by a Certified Playground Safety Inspector (CPSI) to determine the existence of any potential safety hazards so that they may be addressed. This inspection should be conducted prior to the commencement of any

of the following work items identified for this area so that this work may be completed concurrently:

- Correct “area of use zone” for composite structure should be provided to conform with federal playground safety and performance guidelines.
- Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not ADA compliant.
- Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.
- Playground contains sharp edges and protruding bolts, which are a potential safety hazard and should be corrected.
- Existing swing support is missing a cover/cap; should be replaced to avoid insect nesting or ponding of water for mosquito breeding.
- Small wooden playhouse should be removed from playground; it is deteriorating and appears unsound. It may be a safety hazard.

Multi-purpose Room. It is in good condition and does not require any work and/or changes. Space can perhaps be utilized for future Recreation Department program offerings, i.e., arts and crafts, ballroom dancing, yoga and zumba classes, etc.

**6.3.6. Wilkins School.** The Wilkins Elementary School Site is located at 80 Boston Post Road. It contains two (2) separate athletic areas at the rear of the parcel, which are referred to as Lower Wilkins and Upper Wilkins. The Lower Wilkins area contains a playground, two (2) paved half basketball courts, one (1) paved full basketball court, and a multi-purpose athletic field area, striped for football. The Upper Wilkins area contains a large athletic field area, which is striped for football and soccer. This area is accessed from the Lower Wilkins area via a wooden stairway leading up to this area, or via the adjacent stone dust parking area.

The complex is in generally good conditions with the upperfield being more serviceable than the lower field which is perennially wet and often unavailable. The parcel does not afford

opportunities for expansion or reorganization. Specific repair and renovation recommendations include:

**6.3.6.1. Lower Wilkins Field Area** One Multi-purpose Field (160'x360' football field)

- Athletic field area is poorly drained and generally unavailable in the spring. Poor drainage coupled with use has resulted in chronic poor quality turf.
- The field is currently not irrigated, however is chronically wet. If renovation results in proper drainage, then lack of irrigation may result in poor development of any seed planted on-site. An irrigation system is recommended as part of the field renovation.
- We recommend that the existing field be raised and reconstructed with appropriate intercept and under drainage. In lieu of total reconstruction, the existing playing field needs to be top dressed, fertilized, reseeded, and regrown to eliminate bare spots.
- New football goals needed due to the poor condition of the existing goals.
- New spectator seating recommended due to the poor condition of the seating that currently exists within this area.

Estimate Cost of Construction is \$125,000 – \$175,000 depending on renovation scope.

**6.3.6.2. One (1) Full Basketball Court & Two (2) Half Basketball Courts.** The basketball and tennis facilities are both experiencing age related structural cracking. Both are currently serviceable but require full depth pavement reconstruction.

There is no 10' high perimeter fencing for ball containment and safety purposes; it is recommended that one be installed at the full basketball court location.

Courts are currently not surfaced. Acrylic tennis and basketball surfacing provides improved court sports performance, added durability, and improved aesthetics.

One (1) half-court is not serviceable due to missing basketball backboard, hoop, and net; new replacement goal equipment should be installed.

Estimated Cost of Construction: \$90,000 - \$125,000.

**6.3.6.3. Playground.** A cursory examination of the on-site existing playground has been conducted; however, it is recommended that a full playground safety inspection be conducted by a Certified Playground Safety Inspector (CPSI) to determine the existence of any potential safety hazards so that they may be addressed. This inspection should be conducted prior to the commencement of any of the following work items identified for this area, so that this work may be completed concurrently:

Existing surfacing material should be verified and brought up to correct depth per maximum fall height. Surfacing should be raked to distribute, grade, and remove debris. Current surfacing is not accessible

Does not contain surface containment edging. If loose fill surfacing is to be utilized, recommend installation of edging to contain surfacing/provide ease of maintenance.

Does not contain age-appropriate signage per the U.S. Consumer Product Safety Commission (CPSC) and American Society for Testing and Materials (ASTM) Playground Safety Guidelines; proper signage should be installed.

**6.3.6.4. Upper Wilkins Field Area.** Upper Wilkins provides one (1) Multi-purpose Field Area (160'x340' approx.) football field or two (2) soccer fields (entire field area is approx. 380'x360' (approx.). The field is not irrigated, but is in generally good condition given the demands it sustains.

The field is not ADA accessible as there is no accessible route to the field from the parking area. This would be difficult to achieve.

The playing area is 20-25 feet from the top of slope, which affords an acceptable run-out distance. Still, slope protection is recommended for the purposes of safety/liability. We recommend the installation of a chain link fence or guard rail along the top of slope line. If chain link fence is the selection of choice, fencing can also assist in stray ball containment.

We recommend replacement of chain link fencing, located adjacent to existing stone dust parking area, recommended due to the fair to poor condition of the existing fencing.

Existing stone dust parking area should be regraded to provide positive drainage, and/or paved.

Estimated Cost of Construction: \$7,500 - \$20,000 depending on parking lot scope.

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>	<u>Cost</u>
Spaulding Field	<ul style="list-style-type: none"> <li>• General Field Maintenance</li> </ul>	No Change	\$5K- \$10K
Davis Lane Tennis Courts	<ul style="list-style-type: none"> <li>• Tennis Court Reconstruction</li> <li>• Parking and Accessibility Improvements</li> </ul>	No Change	\$90K
Amherst Middle School	<ul style="list-style-type: none"> <li>• Softball Fields Maintenance</li> <li>• Basketball Court Repair</li> <li>• Tennis Court Repair</li> </ul>		\$125K- \$135K
Bean Property	<ul style="list-style-type: none"> <li>• None</li> </ul>	None	N/A
Clark School	<ul style="list-style-type: none"> <li>• Playground Repair</li> </ul>	No Change	N/A
Lower Wilkins	<ul style="list-style-type: none"> <li>• Football Field Drainage Improvements</li> <li>• Irrigation</li> <li>• Spectator Seating</li> <li>• Goals</li> <li>• Basketball Fencing and equipment</li> <li>• Basketball Surfacing</li> </ul>	No Change	\$215K- \$300K
Upper Wilkins	<ul style="list-style-type: none"> <li>• Parking Renovations</li> <li>• Fence Installation</li> </ul>	None	\$7500- \$20K

#### **6.4. Souhegan High School**

The following is a brief discussion of the primary alternative facility layouts for redevelopment at each of the complexes within the High School campus that had redevelopment potential.

##### **6.4.1. Stadium Field and Track.**

**6.4.1.1. General.** The Stadium Field and Track is an extremely important component of the School's athletic field inventory. The field is used intensely by a variety of users: freshman, junior varsity, varsity, and more. It is also an important venue for the School. Despite maintenance and somewhat rested use, the turf quality is chronically poor. This limits its scheduling and burdens adjacent fields. The track is nearing the end of its useful life. The field at Stadium Field should be replaced with a synthetic turf field and the track needs to be reconstructed. The Master Plan recommendations do not include any reconfiguration of the playing field or track, other than the development of one (1) synthetic turf field in place of an existing natural turf field. Consideration should be given to configuring the track at a somewhat larger radius, allowing for a wider infield. The site improvements project should include modifying the existing bleachers and press box to be ADA accessible. The improvements to Stadium Field will result in a significant increase in field capacity of well over 650 uses, with the substitution of a filled synthetic turf field. We believe these improvements can be accomplished with minimal inconvenience to users and little impact on surrounding field availability as the project could be completed between graduation and fall sports. Additionally, we assume that due to the expanded capacity of Stadium Field, both the Souhegan High School and Amherst Recreation Department will benefit by sharing use of the field.

**6.4.1.2. Permitting Requirements.** The improvements as proposed above for the Stadium Field and Track will likely involve minor permitting. We do not think any of the required permits will be problematic, however, as there are no environmental issues. We assume that the stadium seating capacity and lighting provisions will remain

unchanged and therefore municipal site plan review will not likely be triggered.

#### **6.4.2. Simeon Wilson Field.**

**6.4.2.1. General.** The Simeon Wilson Field consists of one (1) softball field and one (1) multipurpose field. It is an important field with over 500 scheduled team uses per year. These fields are not maintained to the same standard and are not outfitted as game fields, but receive a great deal of use. There is little or no “rest period” afforded to the fields. The existing public seating provisions are in poor condition and not code compliant. There is little on-site parking.

The field needs to be reconstructed as a new infilled synthetic turf field to accommodate up to 600 scheduled team uses per year. Given the presence of lights at this venue, this new field represents an increase of one-and-a-half new field equivalents to the community. Additional improvements will include site drainage, ADA accessible walkways and parking, and new spectator seating.

The improvements to Simeon Wilson Field coupled with the reduced demand resulting from the stadium field improvements will result in a significant increase in field capacity. With a complete reconstruction of the site, this could become a more durable, higher quality site for the School.

**6.4.2.2. Permitting Requirements.** The reconstruction of the fields may involve work within or adjacent to a bordering vegetated wetland area. As the fields will be synthetic turf, the Town may require the submission of additional information related to the environmental safety of infilled synthetic turf adjacent to a wetlands receptor.

#### **6.4.3. Front Fields.**

**6.4.3.1. General.** The Front Fields provide for two (2) athletic fields and additional parking facilities. These fields receive over 400 scheduled team uses per year. The fields should be renovated to include hollow tine aerating to relieve compaction, top-dressing with coarse sand, fertilizing, reseeding, re-growing to eliminate bare spots, and resting. Additional improvements will include ADA accessible walkways. The existing users should be

rescheduled to other rectangular fields created elsewhere in the Master Plan such as the Stadium Field's proposed synthetic turf field. As a result, this Master Plan element should be later in the program sequencing or phasing plan.

**6.4.3.2. Permitting Requirements.** None

**6.4.4. Back Fields.**

**6.4.4.1. General.** The Back Fields provide for two (2) 90' diamond baseball fields and two (2) soccer fields, approximately 205' x 330' and 120' x 180' in size. The two (2) soccer fields are located within the outfield area of the two (2) baseball fields. These fields receive over 500 scheduled team uses per year. The fields should be renovated to include aerating to relieve compaction, top-dressing, fertilizing, reseeding, re-growing to eliminate bare spots, and resting. Additional improvements will include ADA accessible walkways. Like the Front Fields, the existing users should be rescheduled to other rectangular fields created elsewhere in the Master Plan such as the Stadium Field's proposed synthetic turf field. As a result, this Master Plan element should be later in the project sequencing plan.

**6.4.4.2. Permitting Requirements.** None

**6.4.5. Additional High School/Community Athletic Facilities**

**6.4.5.1. Outdoor Basketball.** The parking area to the west of the Stadium is an ideal location for the construction of two (2) exterior basketball courts. The exterior basketball courts would help to relieve some of the demand on the School's gymnasium court. Additionally, it would be responsive to the survey response that noted the need for additional outdoor basketball space.

The basketball courts would be asphalt construction with a colored acrylic coating. The courts would be equipped with durable outdoor gooseneck poles and backboards. The courts would be enclosed with 6' vinyl coated chain link fencing and gates. The courts could be lighted for night play; however this was not carried in the preliminary cost estimate below. See layout plan at Enclosure 3.

**6.4.5.2. Tennis Facilities.** There is also a need for an on-site competition tennis facility. The School's tennis teams currently use the tennis facilities at the Jasper Valley Swim and Tennis Club, incurring rental and travel expenses. A six (6) court tennis facility could be constructed in the existing parking area next to the varsity baseball field. The existing parking lot under the PSNH power lines would be expanded to compensate lost parking. These courts would be asphalt construction with an acrylic coating and striping like PlexiPave systems by California Products, with 8' enclosure fencing. The project would also include new net posts, nets, benches and rebound boards. The courts could be lighted for night play; however, this was not carried in the preliminary cost estimate below. See layout Plan at Enclosure 3.

**6.4.5.4. Gymnasium Facilities.** Under a separate study of the Souhegan High School Facilities, it was determined that the gymnasium and support areas are not currently providing adequate space for the athletics at Souhegan High School.

The Souhegan High School Master Plan includes renovations to existing interior spaces as well as a building addition. As part of these enhancements, new recreational space is cited to include an auxiliary gym, a wellness center, increased team locker rooms, and trainer space. The auxiliary gym is preliminarily designed to be used for indoor sports such as boys' volleyball, girls' volleyball, wrestling, and the spirit team, all of which currently utilize the main gymnasium. The use of auxiliary gymnasium space for these sports will relieve the demand on the existing facility and allow the main gymnasium to be used for basketball.

Also provided in the interior renovations is a reprogramming of space to allow for a wellness center to fulfill needs of both the high school and the community. This full service wellness center is proposed at the current location of the high school art program and is estimated to cost \$465,000. The Souhegan master plans calls for the development of a 40 feet by 50 feet facility on two (2) levels (2,000 SF on each floor), equipped with state of the art strength and aerobic equipment, dance/workout studios,

and related amenities. This fitness center is in addition to the auxiliary gymnasium described above.

In the event that these renovations and additions are completed at Souhegan High School, we recommend that the Recreation Department determine the programming needs that may be fulfilled by use of the auxiliary gymnasium space and the wellness center. Uses may include group fitness classes, active adult recreation, or recreational education classes.

**6.4.6. High School Outdoor Master Plan Summary.** The following table summarizes the Souhegan High School Outdoor Athletic Facility Redevelopment Master Plan elements described above:

<u>Location</u>	<u>Redevelopment Strategy</u>	<u>Field Change</u>
Stadium Field	<ul style="list-style-type: none"> <li>• New Synthetic Turf Field</li> <li>• Reconstruct Track</li> <li>• Modify Bleachers for ADA</li> <li>• Access Improvements</li> </ul>	Synthetic Turf +1.5 fields
Simeon Wilson	<ul style="list-style-type: none"> <li>• Reconstruct Existing</li> <li>• Access Improvements</li> <li>• Drainage Renovation</li> <li>• Irrigation Improvements</li> </ul>	Synthetic Turf +1.5 fields
Front Fields	<ul style="list-style-type: none"> <li>• Renovate Existing</li> <li>• Access Improvements</li> </ul>	No Change
Back Fields	<ul style="list-style-type: none"> <li>• Renovate Existing</li> <li>• Access Improvements</li> </ul>	No Change
Tennis Courts	<ul style="list-style-type: none"> <li>• Construct New Courts</li> <li>• Relocate Parking</li> </ul>	+6 Tennis Courts
Basketball Court	<ul style="list-style-type: none"> <li>• Construct New Courts</li> </ul>	+2 Basketball Courts

**6.5. Assessment of Undeveloped Parcels**

Given the compelling need for additional athletic field space, coupled with the pending loss of the Cemetery Fields, the proposed improvements at the High School do not go far enough to meet the current and projected needs of the Town. As a result, Gale was asked to assess the recreational development potential of several parcels of land to include the Stearns Road property, the Baboosic Lake Road parcel, the Joppa Hill farm parcel, and a small piece of land contiguous with the Middle School. It should be noted that both the Stearns Road property and the Baboosic Lake Road parcel are currently not owned by the town, while the Baboosic Lake Road parcel is owned by the Amherst School District. Additionally, the Stearns Road property has previously been unsuccessfully petitioned for purchase by the Town for use by the Recreation Department. We realize the sensitivity surrounding the procurement of these parcels and understand that ownership may or may not be feasible. However, due to the unmet recreational needs of the community, it is appropriate to provide notional development strategies of any parcels which have the potential to meet the demand for additional recreation opportunities in the Town.

**6.5.1. Stearns Road Property.** The Stearns Road property is a 57 acre parcel located on Stearns Road in Amherst. The parcel is currently not owned by the Town and a motion to purchase the parcel failed at the most recent Town meeting. However, a preliminary assessment of the recreational development potential of the parcel was completed by the Town in February 2010. Further research by Gale concludes that there is high development potential to help meet the demand for additional athletic fields. The land is bordered by the Souhegan River at the north of the property, Stearns Road at the south, and private properties to the east and west. A significant portion of the parcel is designated as a 100 year floodplain area of the Souhegan River, and additional wetlands exist at the Southwest section of the property. There is an existing gravel access drive from Stearns Road extending to the northern part of the parcel. The flat topography and open space characteristic of the property is desirable for the potential expansion of athletic fields, as construction would require minimal clearing and grubbing, excavation and heavy earthwork (see base map at Enclosure 4).

The Stearns Road parcel currently contains four (4) multipurpose fields which would require minor repair and maintenance prior to becoming serviceable. This existing layout and the associated improvements can be considered the more readily available and more cost effective development opportunity. Improvements to this existing layout may include the following:

**OPTION 1 (RENOVATION TO EXISTING FIELDS)**

• Field maintenance (4 fields @ \$2000 each)	\$ 8K
• Amenities Building	\$ 40K
• Parking & Fencing	\$ 175K
• Spectator Seating (8 50-person sets @ \$3000 each)	<u>\$ 24K</u>
<b>TOTAL</b>	<b>\$ 247K</b>

Imagery of this facility depicting a portion of the existing fields is provided in Enclosure 4.

Alternatively, to gain the highest recreational value from the parcel, we have included a full development schematic to include new multipurpose fields, baseball fields, playgrounds, a concessions building, spectator seating, lighting, and additional site amenities. This redevelopment could generally be laid out as reflected at Enclosure 4 for recreational development. The following bulleted list summarizes the development potential of the Stearns Road property and associated cost estimates, assuming the Town purchases the property for recreational development purposes.

**OPTION 2 (NEW ATHLETIC COMPLEX DEVELOPMENT)**

• Three (3) 240' x 360' Multi-Purpose Rectangular Fields	\$ 800K
• Two (2) Little League baseball fields (60')	\$ 300K
• Fencing, walkways and appurtenances	\$ 90K
• Parking Lot	\$ 120K
• Amenities building	\$ 40K
• Playground	\$ 10K
• Spectator Seating (6 50-person sets @\$3000 each)	\$ 18K
• Lighting	<u>\$ 500K</u>
<b>TOTAL</b>	<b>\$1,878,000</b>

The state and local permitting requirements for development on the property would be significant due to existing floodplain and wetlands on the property. However, given the size of the parcel, environmental receptor areas can likely be avoided and the permitting requirements can likely be met.

It is recommended that the Stearns Road property be reconsidered for purchase and development by the town as it has great potential to provide for the unmet athletic field demand indicated by results of the Needs Assessment. With the loss of the Cemetery Fields, the Stearns Road Property is a suitable replacement, and then some.

**6.5.2. Amherst Middle School Property.** To the east of the existing softball fields at the Amherst Middle School is a small wooded area currently being used for the Souhegan High School Ropes Course and gardening area. Gale assessed the area for development potential of one (1) multipurpose rectangular field. It is understood that a soccer field was once proposed at this location, but did not come to fruition due to abutting properties and their concern associated with lighting and disturbance.

The site is characterized by a sparsely wooded area, with a small amount of wetlands bordering an electrical easement that runs east-west to the north of the site. The development of the town-owned property would require minimal permitting and would allow for the addition of the following:

- One (1) 240' x 360' sand based natural turf multipurpose rectangular field \$ 300K
  - Athletic lighting \$ 275K
  - Fencing, walkways, and appurtenances \$ 20K
  - One (1) portable spectator seating (50 person) \$ 5K
- TOTAL \$600,000**

From experience in athletic field design, Gale is familiar with the concerns of abutting property owners in regards to athletic fields adjacent to their properties. With the use of appropriate screening, and current lighting technologies, there should not be a recurring issue in the development of a multipurpose field in this location. See attached schematic provided in Enclosure 5.

**6.5.3. Baboosic Lake Road Property.** The properties owned by the Amherst School District located on Baboosic Lake Road have been assessed for possible recreational development. Although this land has apparently been set aside for the possibility of a third elementary school, it is understood that the land may be leased or developed if there were another property suitable for an elementary school that could be swapped.

The Town owned property on Baboosic Lake Road consists of three (3) lots with a total land area of approximately twenty-two (22) acres. The parcel has approximately forty (40) feet of frontage on Baboosic Lake Road, adequate for development of an access drive to on-site parking. The parcel is bounded by Baboosic Lake Road in the north, and by Route 101 right of way along the west. The properties to the south and east are undeveloped woodland. There are two (2) wetland areas centrally located in the northern third of the parcel and along the southern lot line. The parcel is densely

wooded and it appears that there may be significant ledge outcroppings.

The feasibility of development on this parcel is speculative, due to uncertainties in the geology and topography of the undeveloped land. However, the parcel does afford sufficient area to support the development of a minimum of three (3) multi-purpose rectangular fields and other recreation amenities. Based on the size and accessibility of the parcel, as well as wetland locations, a schematic layout (Enclosure 6) reflects the following athletic field facilities in a proposed development of the property:

• Three (3) 240' x 360' Multi-Purpose Rectangular Fields	\$ 1,050K
• Two (2) Outdoor Basketball Courts	\$ 80K
• Access drive from Baboosic Lake Rd.	\$ 120K
• Parking Area	\$ 90K
• Amenities Building	\$ 50K
• Spectator Seating (3) (50 person portables)	\$ 10K
• Lighting	<u>\$ 500K</u>
<b>TOTAL</b>	<b>\$1,900,000</b>

Although the proposed Baboosic Lake Rd development would likely be more costly to the Town in comparison with the Stearns Road property due to the more challenging vegetative cover, topography and geotechnical conditions, it would fulfill a significant portion of the current unmet athletic facility needs.

**6.5.4. Joppa Hill Farm.** The Joppa Hill Farm property, located at the Northeast corner of Amherst and at the border to the town of Bedford, is a two hundred thirty (230) acre site which includes an undefined (twenty) 20 acres that have been designated for active recreation. The property is currently under Town ownership and deemed “Permanent Open Space” in regards to existing land use. The property is heavily wooded and contains wetlands and a designated floodplain at the majority of the southern portion of the parcel. The remaining acreage beyond the wetland constraints is characterized by topography which is steeply sloped toward its highest point of elevation at the Amherst/Bedford border. The geology of the site beyond the area of wetlands can be characterized as well drained and excessively drained soils. However, the presence of ledge and the prohibitive topography limit the developmental potential of the land.

The most significant challenge to the development of this parcel for active recreational use is related to access. The parcel does not have frontage on a public way in the Town of Amherst. Although

at one time there may have been access land to the property, this access is now owned by the Town of Bedford. If the Town of Bedford would allow development of an access drive, it would likely be reached through Joppa Hill Road or Horace Greeley Road. This is a significant hurdle to overcome.

Based on the topography, geology, and prohibitive site access issues, Gale anticipates that the development of athletic facilities at this site would nearly double in cost as compared to conventional development of a less constrained site. Due to the premium involved in this development, it can be concluded that the Joppa Hill Farm site is more readily suitable for passive recreation and holds little value for a community athletic complex.

**6.6. Summary of Development Potential of Designated Undeveloped Parcels.**

<u>Location</u>	<u>Development Strategy</u>	<u>Cost</u>
Stearns Rd Property	Field maintenance	\$247,000
(Option 1)	Amenities Building Parking & Fencing Spectator Seating	
Stearns Rd Property	Three (3) 240' x 360' Multi-Purpose Rectangular Fields	\$1,878,000
(Option 2)	Two (2) Little League baseball fields (60') Fencing, walkways and appurtenances Parking Lot Amenities building Playground Spectator Seating Lights	
Amherst Middle School	One (1) 240' x 360' Natural Turf Multi-Purpose Rectangular Field Fencing, walkways, and appurtenances Athletic Lighting One (1) Portable Spectator Seating (50 person)	\$600,000
Baboosic Lake Road	Three (3) 240' x 360' Multi-Purpose Rectangular Fields Two (2) Outdoor Basketball Courts	\$1,900,000

Access drive from Baboosic Lake Rd.  
Parking Area  
Playground  
Amenities Building  
Lights  
Portable Spectator Seating (3) (50 person)

Based on the alternatives of undeveloped parcels, it is recommended that the Town of Amherst consider pursuing ownership and development at the Stearns Rd property as well as development at the Amherst Middle School, as this would increase the inventory by four (4) multi-purpose rectangular fields, two (2) Little League baseball fields, and one (1) playground. Based on the summary of facility needs, this would adequately meet Priority 1, with exception of an additional adult baseball field as outlined in Section 5.0 – Athletic Field Program Requirements. In the event that the town has the financial ability to develop an additional parcel such as the Baboosic Lake Road property, this would go beyond fulfilling the Priority 2 needs.

#### **6.7. Athletic Lighting Permitting Requirements**

Several of the proposed improvement projects include the installation of athletic lighting to take best advantage of the new or renovated field space. Athletic lighting of a typical field involves the installation of 4-6 poles, 60-70 feet high, each with 12-20 fixtures and providing a degree of illumination of 40-50 foot candles at mid field. The permitting of athletic lighting is governed by zoning and planning bylaws of the Town. Included in these regulations are Outdoor Lighting Guidelines, which regulate variables such as light fixture intensity, height, and degree of illumination. According to the Amherst Zoning Regulations, any variation from the Outdoor Lighting Guidelines requires filing a request for waiver. Additionally, the proposed light towers can be considered a structure and can exceed the maximum structural height for the zoning district in question requiring a variance from the Zoning Board of Appeals.

Whether the proposed lighting requires a zoning variance, planning regulation waiver, or special permit, the process will involve an initial application followed by a public hearing process with abutter notification. In order to mitigate off site impacts of the proposed lighting, one of the orders / conditions of approval that typically result from this public hearing process is an order to demonstrate that the resulting post installation light levels at the property line do not exceed the ambient condition. Given the advances of lighting technology such as MUSCO Light Structure Green, these conditions can usually be met. A pre-development light survey is completed at the property line by a certified

lighting engineer engaged by the Town to establish the ambient condition. The light installation is followed by another post development light survey to determine the post development conditions. If light levels at the property line are exceeded, then the lighting is adjusted and refocused until this non-conformity is resolved.

Several fields in the town are currently lighted, and there was support expressed in the sensing sessions and the town wide survey for additional lighted fields. Based on this precedent and voiced support, and more importantly based on the capability of current technology to keep the light on the field and reduce off site impacts, it is likely that the permitting for the proposed athletic lighting will meet with success.

### **Section 7.0 – Athletic Field Demand and Rest Following Master Plan Implementation**

An objective of the Master Plan is to reconstruct existing fields or develop sufficient new fields to better meet the demands placed on them by the Amherst Community’s existing athletic programs. A goal is to provide sufficient fields by type such that the demand on any individual field does not exceed 200 to 250 scheduled team uses. As previously noted, 200 team uses is the maximum number that a properly irrigated and maintained field with a 30-45 day rest period during the active growth season can sustain and still maintain good quality athletic turf.

Once the final number and type of fields was established, the next task was to allocate each user group and associated uses (i.e., # of practices, # of games) to the existing fields. The goal was to minimize the number of total uses per field to less than 250. In addition, we also wanted to integrate a rest period for each field during one of the seasonal growing periods.

For purposes of this analysis, we assume the following Master Plan elements will be implemented:

- Lower Wilkins Field Improvements
- Middle School multipurpose field development
- Stearns Rd Parcel (or alternative) development
- Cemetery Field closures

The implementation of the Master Plan will result in the natural turf fields seeing a 25% reduction in uses to approximately 350 uses per year and allow enough rest between seasons for re-growth and maintenance of the turf. This reduction is based on our assumption that the stadium field uses increase from 119 to 650 uses per year. In addition, it is apparent that the new synthetic turf fields will see heavy use throughout the year and become an important

component of the Master Plan. Given that the Master Plan is calling for the complete renovation of several existing fields, we feel that the uses they can sustain will improve from 200 to 250.

As shown in the table below, the implementation of the proposed strategy allows for a redistribution of demand with a 26% reduction of demands on all natural turf fields.

FIELD USE ANNUAL SUMMARY - ACTUAL TEAM USES					
Field Location	Field	Field Type	Total Annual Uses	Proposed Uses	Comments.
<b>Cemetery Fields</b>	Field 1	B	185	0	<b>Eliminated</b>
	Field 2	MPR	253	0	
	Field 3	MPR	253	0	
<b>High School (Front Fields)</b>	Field 1	MPR	409	250	<b>Use cut by 40%</b>
	Field 2	MPR	409	250	
<b>High School (Stadium)</b>	<b>Field 1</b>	<b>MPR</b>	<b>119</b>	<b>600</b>	<b>PROPOSED SYNTEHTIC TURF</b>
<b>High School (Rear Fields)</b>	Field 1	B/MPR	535	350	<b>Use cut by 40%</b>
	Field 2	B/MPR	535	350	
<b>High School (Simeon Wilson)</b>	<b>Field 1</b>	<b>S/MPR</b>	<b>511</b>	<b>600</b>	<b>PROPOSED SYNTEHTIC TURF</b>
<b>Bean Fields</b>	Field 1	B	177	177	<b>Unchanged</b>
	Field 2	MPR	241	240	
	Field 3	MPR	241	240	
	Field 4	MPR	241	241	
<b>Lower Wilkins Field</b>	<b>Field 1</b>	<b>MPR</b>	<b>166</b>	250	<b>Reconstructed Field</b>
<b>Upper Wilkins Field</b>	Field 1	MPR	240	240	<b>Unchanged</b>
<b>Middle School</b>	Field 1	S/MPR/S	1014	500	<b>Use cut by 50%</b>
	<b>Field 2</b>	<b>MPR</b>		250	<b>New Field</b>
<b>Spaulding</b>	Field 1	B/MPR/MPR/B	36	36	<b>Unchanged</b>
<b>Stearns Road Rec Complex</b>	Field 1	B	0	120	<b>New Complex</b>
	Field 2	B	0	120	
	Field 3	MPR	0	250	
	Field 4	MPR	0	250	
	Field 5	MPR	0	250	
			5564	5564	
			Events per field	Events per field	
			327.3	242.4	a 26% decrease in demands on natural turf fields.

Given the closing of Cemetery Fields and the current unresourced athletic field demands, maintenance alone cannot provide the resources to meet the recreational needs. To solve the existing problem, either Cemetery Fields must remain open or an additional parcel such as the Stearns Road property must be developed for recreational use. In addition, the Souhegan High School Master Plan must be implemented. These enhancements to athletic field resources will sustain their uses and provide the recreational facilities currently in demand by the Town of Amherst.

## **Section 8.0 – Athletic Field Enhancements Phasing**

It is apparent that the implementation of the entire Master Plan is not feasible in a single project due to Town's fiscal constraints and due to the impacts on users, who must have field space during the redevelopment process. The Master Plan is therefore broken into discrete projects based on reasonable annual budget expenditures, priority of need, and minimization of user impacts. In general, the principles behind the formulation of the Master Plan phasing are:

- Accomplish the projects, which result in the biggest impact first, to set the conditions for the project;
- Accomplish the remaining Master Plan elements in order of relative importance based on projected use;
- Attempt to accomplish all elements of the Master Plan in five years, including the current year;
- Attempt to balance the Town's expenditure on field renovation throughout the Master Plan implementation period;
- Schedule Master Plan elements that only provide for the renovation of an existing field in place, with no change in layout or use, late in the phasing plan.

### **8.1. Souhegan High School Master Plan Phasing.**

The Souhegan Cooperative School District completed a facilities need assessment. Gale completed a portion of the study, which evaluated the serviceability and adequacy of the schools indoor and outdoor athletic and recreational facilities. A full review of this plan is available by contacting the SAU 39 and referring to the Comprehensive Facilities and Program Needs Assessment and Master Plan. The following is a summary of the phasing plan associated with the athletic facility enhancements included in that Master Plan.

**8.1.1. Phase 1, Fiscal Year 2011.** Phase 1 should include the construction of a new synthetic turf field at the stadium field location. The existing track will also be reconstructed during this time. The synthetic turf field will be available earlier than any natural turf field that is redeveloped or developed. When this project is completed, it

will result in a fully renovated, multi-purpose synthetic turf field and reconstructed track.

Also accomplished in Phase 1 will be the modification of the existing bleachers and press box to allow for ADA accessibility. Given the limited damage to the surrounding existing fields during construction, and the quick turnaround use of a synthetic turf field, this Phase will provide the School with the ability to not have to reallocate any user groups from the other fields, which is an advantageous option many schools do not have available.

The provisions of a high-use premium quality field ready for use in 2011, along with the reconstructed track, will help to set the stage for subsequent phases of the Master Plan so that they can be accomplished without major disruption to ongoing programs.

Phase 1 should also include the construction of six (6) new tennis courts and two (2) new basketball courts. This could be completed as part of the initial site improvements project described elsewhere in this report. In addition, new parking will be constructed to replace parking lost from the construction of the tennis courts.

**8.1.2. Phase 2, Fiscal Year 2012.** Phase 2 should include the reconstruction and renovation of the existing fields at Simeon Wilson Field. The reconstruction of the softball field and the multipurpose field will set the stage for Phase 3 of the Master Plan.

**8.1.3. Phase 3, Fiscal Year 2013.** With the implementation of Phase 2, the School can reconstruct and renovate the front fields.

**8.1.4. Phase 4, Fiscal Year 2014.** Phase 4 should include the reconstruction and renovation of the back fields to include the two (2) multipurpose fields and the two (2) baseball fields.

### **Phasing Plan Summary**

#### **8.2. Town Facilities Phasing.**

**8.2.1. Phase 1, Fiscal Year 2011.** Phase 1 should include the improvements to Lower Wilkins Field to include field drainage, irrigation, spectator seating, goals, and basketball court resurfacing. The results of these improvements will provide for a reconstructed multipurpose field allowing the total annual uses of the Lower Wilkins

Field to increase from 166 to nearly 250, fulfilling a portion of the current unmet athletic field needs. Additionally, it will include basketball court improvements which are currently experiencing structural cracking. The cost of these improvements total approximately \$300,000.

**8.2.2. Phase 2, Fiscal Year 2012.** Phase 2 should include the development of a multipurpose field at the Amherst Middle School, as well as completion of the required maintenance to the current facilities at the Middle School. The new multipurpose field will accommodate 250 annual uses and allow for a significant decrease in the overuse of the current soccer and multipurpose field. The total cost of the new construction as well as the cost of renovations to the basketball courts and tennis facilities total \$735,000.

**8.2.3. Phase 3, Fiscal Year 2013.** Phase 3 consists of the athletic complex build out at the Stearns Road Property, utilizing the existing site features. As stated previously, the property is currently not owned by the Town, and any development at this location is purely notional. Regardless of where the Town may potentially have the ability to develop, Phase 3 should include the renovation of the existing multipurpose fields, an amenities building, fencing, spectator seating, and ample parking d. The preliminary cost estimate for this renovation at the Stearns Road Property parcel totals nearly \$250,000. It is important that such an athletic complex is developed prior to the Cemetery Fields coming offline.

**8.2.4. Phase 4, Fiscal Year 2014.** Phase 4 should include the various maintenance and improvements included at the Baboosic Lake Waterfront area, the Davis Lane Tennis Courts, and Spaulding Field. These include general maintenance, tennis court reconstruction, and waterfront improvements. The total cost of these as included in Phase 4 is approximately \$290,000.

**8.2.5. Phase 5, Fiscal Year 2015.** Phase 5 indicates the closing of Cemetery Fields as a basis for the timing differential between the opening of an additional athletic development at Stearns Road and the closing of the Cemetery Fields. Additionally, it includes the maintenance, upgrades, and renovations as discussed for the facilities at Bragdon Hill, PMEC & Joe English Reservation, Upper Wilkins fields, and Beaver Brook Park. The total cost of these enhancements is approximated at \$180,000.

### Town Facilities Phasing Plan Summary

LOCATION	FY 2011	FY 2012	FY 2013	FY2014	FY2015
<b>PHASE I</b>					
Lower Wilkins Improvements	\$300,000				
<b>PHASE II</b>					
New Middle School Field		\$600,000			
Middle School Renovations		\$135,000			
<b>PHASE III</b>					
Land Acquisition					
Stearns Rd. Rec Complex			\$247,000		
<b>PHASE IV</b>					
Baboosic Lake Beach				\$190,000	
Davis Lane Tennis				\$90,000	
Spaulding Field				\$10,000	
<b>PHASE V</b>					
Cemetery Field Closing					\$0
Bragdon Hill					\$90,000
PMEC & Joe English					\$60,000
Upper Wilkins					\$20,000
Beaver Brook					\$10,000
<b>Total Costs</b>	<b>\$300,000</b>	<b>\$735,000</b>	<b>\$247,000</b>	<b>\$290,000</b>	<b>\$180,000</b>

### Section 9.0 – Amherst Trail Program

The Amherst Conservation Commission (ACC) currently maintains the majority of the trails included in the Town of Amherst, New Hampshire trail network, with only a few exceptions, as noted in the following paragraphs of the report. These trails should afford the opportunity to be enjoyed by both passive and active recreation enthusiasts alike. It is for this reason that we believe that the Amherst trail network should be addressed as part of this master planning effort to see how the network currently exists, how the network may better service the diverse needs of the Town, and to perhaps heighten the visibility of these recreational, as well as conservational, assets. We will begin by looking at the condition and opportunities afforded at each of the various trails that make up the existing trail network.

#### **9.1. Existing Trail Network**

The Town of Amherst has an extensive trail network, totaling over twenty-four (24) miles. This network consists of the following eleven (11) locations:

- Josiah Parker Trail
- Pulpit Brook Trail
- Patch Hill Trail
- Bicentennial Trail

- B-H Trail
- Haseltine Community Preserve
- Joe English Reservation
- Ponemah Bog
- Arnold Trail
- Boston & Maine Railroad Roadbed (B & M Trail)
- Pond Parish Trail

**9.1.1. Josiah Parker Trail.** This is a new trail that was constructed two (2) or three (3) years ago. The trailhead access point is located off of Baboosic Lake Road. There is no designated parking for this trail; individuals must park off to the side of Baboosic Lake Road and park where space is available. There is a white trail blaze marker and a small sign affixed to a tree a short distance into the trail containing the name of the trail and rule/informational verbiage (refer to Photograph 1, included in Enclosure 7). The surface treatment of this trail is bare ground. It resides on private property, therefore patrons are asked to stay within the trail limits. The above mentioned sign notes this information and also states that no motorized vehicles are allowed on this trail.

**9.1.2. Pulpit Brook Trail.** The Pulpit Brook Trail affords approximately 2.5 miles of trail, traveling across the Joppa Hill Farm site, as depicted in the Pulpit Brook Vicinity Map, included at Enclosure 7. It leads to the JHF Loop Trail, which situated partially in Bedford, New Hampshire. It also connects to the Pulpit Rock Conservation Area in Bedford, New Hampshire. There is an access point in Amherst off of Horace Greeley Road. There are also other access points via Bedford, New Hampshire. The access location located off Horace Greeley Road does not contain designated off street parking. There is a small area at the entrance of the trail where an individual may drive straight in just enough to get their vehicle out of the right of way (refer to Photograph 2, included in Enclosure 7). There is a small wooden sign affixed to a tree near the entrance that contains the name of the trail (refer to Photograph 3, included in Enclosure 7). The surface treatment of the trail is bare ground.

**9.1.3. Patch Hill Trail.** The Patch Hill Trail travels to Patch Hill Conservation Land, Chase Lane, and Mayflower Hill Town Forest in Milford, New Hampshire, which can be seen on the Patch Hill Trail Map included at Enclosure 7. The start of the trail to Chase Lane, located in Milford, New Hampshire, is approximately one (1) mile, half of which is located in Amherst and half in Milford. The access point that lies in Amherst is located opposite

house #47 on Lyndeborough Road. There are no designated parking provisions and no signage included at this location. The Patch Hill Trail leads to the Patch Hill Conservation Trails partially located in Milford, New Hampshire.

**9.1.4. Bicentennial Trail.** The Bicentennial Trail was constructed in 1976, hence its name; it affords approximately four (4) miles of trails for hiking and hunting, and offers limited opportunities for cross-country skiing, mountain biking, and horseback riding. For an overview of this trail area, refer to the Bicentennial Trail Map included as part of Enclosure 7. There are four (4) trailheads; one (1) at the North end of Brook Road; one (1) at Austin Road, located east of Dodge Road; and two (2) at Dodge Road, one (1) of which is in close proximity to the Department of Public Works (DPW) Garage. None of these locations provide off street parking. At each of these access points, patrons must park off to the side of the road in the space available.

The access point located on Austin Road is actually a point in which the Bicentennial Trail crosses Austin Road. On one side, the trail resides on private property. This side of Austin Road was hit by a microburst approximately two (2) months ago, knocking down trees and leaving behind a path of destruction (refer to Photograph 4, included in Enclosure 7). One (1) of the trees that was knocked down by this force of nature contained signage for the trail. The other side contains a hunting warning sign and a trail blaze marker (refer to Photograph 5, included in Enclosure 7). This side resides on an easement owned by the Town of Amherst. Parking for approximately one (1) to two (2) vehicles exists off to the side of Austin Road.

The access point located on Dodge Road, nearby to the DPW Garage, resides at the end of the trail. Two (2) to three (3) vehicles may park off to the side of Dodge Road. There is no signage beyond that of a hunting sign and hunting schedule affixed to two (2) individual trees, and a single white trail marker (refer to Photograph 6, included in Enclosure 7). All of these items are sited toward the beginning of the trail.

The other access point that exists on Dodge Street also contains limited on-street parking opportunities, allowing a maximum of approximately two (2) vehicles. There is a fairly new kiosk that exists at the entrance displaying a map of the trail area in a clear display case (refer to Photograph 7, included in Enclosure 7). There is also a hunter warning sign affixed to this kiosk.

The access point located off Fieldstone Drive is a location in which the Bicentennial Trail actually crosses this drive (refer to Photographs 8 and 9, included in Enclosure 7). No signage exists at this crossing. There is limited on street parking for approximately six (6) to eight (8) vehicles. The Bicentennial Trail is connected to the Hammond Brook Trail, located at the Joe English Reservation. The surface treatment that exists is bare ground.

**9.1.5. B-H Trail.** This trail affords a half mile of trail for pedestrian usage. It connects the Bicentennial Trail to the Haseltine Trail. It is accessed via Austin Road and is located diagonally from the Haseltine Trail. The location of this trail is depicted on the Bicentennial Trail North Map, included as Enclosure 7. There is a small map depicting the overall trail area that is affixed to a tree close to the entrance area of this trail. This tree also contains a single red trail marker (refer to Photograph 10, included in Enclosure 7). The B-H Trail is utilized for the purposes of hiking. Mountain biking and other such activities are not allowed due to the steep terrain. The trail surface is of bare ground. There is a wooden stairway that climbs a steep gradient and a small wooden footbridge that crosses over a brook along the route of this trail (refer to Photograph 11, included in Enclosure 7). These structures were constructed by volunteers. There are no designated off-street parking provisions for this trail; patrons may utilize the parking area for Haseltine Trail, however, and walk a short distance along Austin Road to the nearby access point of the B-H Trail. The Haseltine trail parking area is discussed further below.

**9.1.6. Haseltine Community Preserve.** This parcel of land is approximately ninety-three (93) acres in size. It affords 1.5 miles of trails for pedestrian, cross-country skiing, and mountain bike usage. It is accessed via the south side of Austin Road, east of Pine Top Road. Refer to the Haseltine Community Preserve Map, included as Enclosure 7. This trail area is maintained by the Amherst Conservation Commission (ACC) and the New England Mountain Bike Association (NEMBA). Therefore, in addition to hiking, cross-country skiing, bird watching, horseback riding, and hunting, mountain biking is allowed and enjoyed by many patrons of this trail. There is a designated parking area for this trail with a total vehicle capacity of approximately eight (8) to ten (10) vehicles (refer to Photograph 12, included in Enclosure 7). The parking area, along with the trail area itself, is constructed of bare ground. At the entrance of the trail area there is a wooden kiosk displaying a map of the trail area in a clear display case, along

with warning and trail rule verbiage (refer to Photograph 13, included in Enclosure 7).

**9.1.7. Joe English Reservation.** The Joe English Reservation is approximately 558 acres in size, and affords an extensive color coded trail network equating to a total of approximately ten (10) miles of trails. There are thirteen (13) trails, which are as follows:

- Bacon Trail
- Eagle Trail
- Hammond Brook Trail
- Harding Trail
- Hemlock Trail
- Highland Trail
- Ledge Trail
- Oak Trail
- Old Brook Road Trail
- Pine Trail
- Plumb Trail
- Plumb-Harding Trail
- Timber Trail

Note: A portion of the Bicentennial Trail resides in the Joe English Reservation.

The Joe English Reservation Trail areas are depicted in Enclosure 7. The trail network is accessed via the north end of Brook Road, adjacent to the Peabody Mill Environmental Center (PMEC), and the West Side of Chestnut Hill Road, approximately 2.75 miles up on the left, opposite house #35. The activities that take place at the reservation include cross-country skiing, hiking, horseback riding, and hunting. Mountain biking is allowed only on the Hemlock Trail and Bicentennial Trail. The surface treatment of the trails that exist onsite are bare ground. The individual trails include color coded blaze markers to keep patrons aware of the trail they are actively on. A trail map is encased in a wooden kiosk display case at each of the two (2) entrances, along with some rules of the trail area and hunting warnings and schedule information (refer to Photographs 14 and 15, included in Enclosure 7). There is also a trail map available online, via the Town's website, as well as in the Amherst Walk Book, as published by the ACC, and discussed in more detail later in this report. There are parking provisions located at both the Brook Road and Chestnut Hill Road access points (refer to Photographs 16 and 17, included in Enclosure 7). The parking area located on Brook Road is constructed of bare ground; the one located off of Chestnut Hill Street is of bituminous concrete pavement. There is a porta-potty

restroom facility available, adjacent to the Brook Road parking area. The Hammond Brook Trail is connected to the Bicentennial Trail, which is discussed previously in this report more extensively.

**9.1.8. Ponemah Bog.** The Ponemah Bog Sanctuary is a peat bog that is owned and maintained by the Audubon Society of New Hampshire (ASNH), and affords approximately one eighth of a mile of trail. It is accessed at the end of Rhodora Drive, which is located off of Stearns Road. The trail leads to the bog, and a boardwalk surrounds a bog wetland area that is populated with various plants and birds. This site provides patrons the opportunity to bird watch and plant study, in addition to hiking. There are off street parking provisions available for trail patrons. The surface of both the parking area and trail area itself are bare ground, with the exception of the boardwalk area. There is a wooden kiosk located at the entrance of the trail comprised of site information and a map box. There were no maps available within this box.

**9.1.9. Arnold Trail.** The Arnold Conservation Easement is approximately thirty-four (34) acres in size and affords three-quarters of a mile of trail through a forested area. Arnold Trail is located at the intersection of Dodge and Austin Roads. There is a trailhead sign on the west side of Nathaniel Drive, which is located approximately one (1) mile from Horace Greeley Road; this is the only access point for this trail. The activities that take place at this site are bird watching, hiking, and hunting. The surface treatments of the trails that exist onsite are bare ground. A portion of this trail forms a closed loop. In addition, this trail connects to the Bicentennial Trail and Lorden Path. This trail is depicted on the Bicentennial Trail North Map, included as Enclosure 7. It is illustrated as a solid line on this map, but is not labeled. It can be recognized, however, by the closed loop formed by a portion of this trail, and by its proximity to Nathaniel Drive. This trail contains a freestanding sign displaying the trail name, which is sited at the entrance of the trail (refer to Photograph 18, included in Enclosure 7). There is also a wooden stairway leading downward along the trail at the entrance area (refer to Photographs 19 and 20, included in Enclosure 7). There are no parking provisions designated for this trail. Visitors must pull off to the side of Nathaniel Drive and park where space is available.

**9.1.10. Boston & Maine Railroad Roadbed (B & M Trail).** The B & M Trail affords approximately two (2) miles of trail along a former railroad bed. The trail lies between Walnut Hill Road

and Baboosic Lake Road, traverses a swamp area, and passes Little Baboosic Lake. Refer to Enclosure 7, which depicts a map of the B & M Trail. Either side of this trail is private property; therefore, patrons are urged to stay on the trail and not to stray onto the adjacent private property. This information is conveyed via the Souhegan Land Valley Trust website and the Amherst Walk Book. There is a trailhead sign on Walnut Hill Road. There are no designated parking provisions provided at this entrance area, however, there is a limited number of on-street parking opportunities with a three (3) or four (4) vehicle capacity maximum. There is an ACC boundary marker at the entrance of this access location (refer to Photograph 21, included in Enclosure 7). There is also a trailhead located on Baboosic Lake Road, at the Route 101 eastbound ramp. Patrons for the later of the two trailheads usually park at the Fire Station parking area, for no formal parking has been provided at this entrance location. This trail access point contains no signage, and is extremely dangerous to access, due to the locale of the trail entrance, its proximity to the Route 101 eastbound ramp, and its proximity to the Fire Station parking area (refer to Photograph 22, included in Enclosure 7). The activities that take place at this site are bird watching, cross-country skiing, hiking, and hunting. There are also limited opportunities for horseback riding at this location. The surface treatments of the trails that exist onsite are bare ground.

**9.1.11. Pond Parish Trail.** The Pond Parish Town Forest is approximately 184 acres, and the Pond Parish Trail affords 1.5 miles of trail. There are two (2) trailhead signs; one (1) located on the west side of Pond Parish Road, the other on the northeast side of Spring Road. This trail is depicted in the Pond Parish Trails Map included as Enclosure 7. Both access areas contain a wooden kiosk with trail maps enclosed in clear display cases, hunting schedules and signage, and map boxes (refer to Photographs 23 and 24, included in Enclosure 7). There were no maps available within either of these boxes. There are also designated bare ground parking areas for trail patron use at both locations (refer to Photographs 25 and 26, included in Enclosure 7). The activities that take place throughout this trail area are bird watching, hiking, and hunting. This site also affords limited opportunities for horseback riding and snowmobiling. The surface treatment of the trail area is bare ground. The trail passes areas of wetlands and traverses a brook, via a long footbridge (refer to Photograph 27, included in Enclosure 7).

## **9.2. Results of the Amherst Survey/Available Trail Information**

In a web-based survey, the residents of the Town were asked to complete an Amherst Recreation Questionnaire (see Volume 2). According to the results, there is a strong demand for improved and/or additional trail facilities throughout the Town to meet a number of diverse needs. These include hiking, walking, jogging, biking, snow shoeing, and off road recreational vehicles. Of these, the biggest concern appears to be the need for bike trails. There is a perception that sufficient trails may already exist but they are perhaps poorly publicized, poorly marked, poorly mapped, or have inadequate trail head facilities such as parking, signage, rest rooms or shelter.

It is a recurring theme throughout the survey results that the community, as a whole, seems rather uninformed as it relates to the location, and availability, of the many recreational facilities, particularly those related to passive recreation, hiking, cross-country skiing, snow shoeing, and other trail related activities.

A surprisingly large number of survey participants (354) cited the need for additional, improved, or better publicized trail type facilities for such things as hiking, snow shoeing, biking, jogging, etc. Many of them noted that the trails might be available but that facilities were poorly publicized. Many of the respondents also noted that better sidewalks town wide would facilitate biking and trail interconnectivity. Although the inventory of such facilities appears generally adequate, and a hand full do appear to be interconnected, there needs to be heightened visibility of these recreational assets.

The survey participants were asked what sources of communication they used to find out about recreational events and activities going on in Amherst. The top sources that were listed were local newspapers and the school website/fliers with a 79% and 62% response rate respectively. It is somewhat surprising that the recreation website was not one of the top two (2) answers and received a less than 50% response. It appears that the recreation department should continue to place emphasis on local periodicals and not assume that their client base is deriving information from the recreation website. They should also, however, continue to improve the quality of the recreation website with the goal of making it the primary source of routine recreation information, both passive and active.

The leading response by far to the question of “Other” informational sources was e-mail. Nearly half of the “Other” responses dealt with e-

mail. We are uncertain whether the Recreation Department maintains a direct e-mail address file and whether they do direct e-mail blasts. If not, they may wish to implement one, and if so, they should identify ways to broaden the e-mail address file and make more frequent and better use of this method of information dissemination.

Currently, information regarding the Town of Amherst trail network can be found a few ways. Information can be found via internet by navigating to the following websites:

- Amherst Town Hall – Conservation Commission
- Souhegan Valley Land Trust
- Hike New England

Information can also be found in the “Amherst Walk Book – A Guide to Family Fun” book, published as a second edition by the Amherst Conservation Commission in the summer of 2010. The book is available for purchase for \$11.00 at the PMEC, the Recreation Department Office, the Town Clerk’s office, and at the Toadstool Bookshop at Lordon Plaza. The book includes maps and trail information for all the major Amherst Conservation areas and trails.

In addition to the above-mentioned sources, it may behoove the Amherst Recreation Department to include trail network information and pertinent/associated links on their website.

To further promote the trail opportunities, we recommend that the Recreation Department create a week long Trail Orientation Program as part of its quarterly recreational offerings for interested Town citizens. In addition to expanding on the diversity of the recreational program, this enhancement would promote the partnership with the Amherst Conservation Commission and also assist in increasing the awareness of the rather extensive trail network that does exist within the Town.

Also, another way to spread the word regarding this trail network is to enable the Amherst Area Newcomers Club to actively incorporate discussions and information regarding trails available within the Town. As stated above, local periodicals and e-mail blasts appear to be a good means of conveying such information to residents, as well. Regardless of the communications mechanisms used, improved dissemination of trail network and facilities information needs to be routine and consistently in all recreation related media.

### **9.3. Trail Enhancement Recommendations**

After reviewing of each of the trail locations and their offerings, Gale has compiled a list of enhancements recommended for each and an approximation of the cost to complete these improvements.

**9.3.1. Josiah Parker Trail.**

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The cost for an 8' by 8' kiosk with red cedar roof decking and an affixed map box shall be approximately \$9,800. The cost associated with replenishing the maps to be housed within the map box shall be allotted \$1,000 as a base number. This number shall increase/decrease depending on the amount of maps determined to be necessary. Informational signage shall equate to approximately \$400 per sign. This number shall be highly dependant upon the material, size, and number of signs desired along the trail. For the purposes of this estimate, we have assumed the installation of five (5) signs. The estimated values and assumptions made for the kiosk, maps, and signs shall be utilized for all of the below mentioned trail locations. The estimated cost for the improvements at this Josiah Parker Trail location shall therefore be approximately \$12,800.

**9.3.2. Pulpit Brook Trail.**

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings
- Pruning at entrance of trail area

The estimated cost for the improvements at this Pulpit Brook Trail location shall be approximately \$12,800.

**9.3.3. Patch Hill Trail.**

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)

- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this Patch Hill Trail location shall be approximately \$12,800.

#### **9.3.4. Bicentennial Trail.**

##### Fieldstone Drive Trail Crossing

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this Fieldstone Drive Trail Crossing location shall be approximately \$12,800.

##### Dodge Road Access Point

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this Dodge Road Access Point location shall be approximately \$12,800.

##### Dodge Road Access Point (End of Trail)

- Map Box/Associated Maps (to be affixed to existing wooden kiosk)
- New bare ground parking area - clear area for 3 or 4 vehicles, remove existing trees, grade area (refer to Photographs 28 and 29, included in Enclosure 7)

The cost associated with replenishing the maps to be housed within the map box shall be allotted \$1,000 as a base number. Informational signage shall equate to approximately \$400 per sign, of which there will be five (5). The cost to construct a bare ground parking area with a four (4)-vehicle capacity shall equate to approximately \$13,200. The estimated cost for the improvements

at this Dodge Road Access Point location shall therefore be approximately \$16,200.

#### Austin Road Trail Crossing

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this Austin Road Trail location shall be approximately \$12,800.

#### **9.3.5. B-H Trail.**

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this B-H Trail location shall be approximately \$12,800.

#### **9.3.6. Haseltine Community Preserve.**

- Map Box/Associated Maps (to be affixed to existing wooden kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings
- Pruning at entrance to parking area

The cost associated with replenishing the maps to be housed within the map box shall be allotted \$1,000 as a base number. Informational signage shall equate to approximately \$400 per sign, of which there will be five (5). The cost associated with the parking area entrance pruning shall be approximately \$800. The estimated cost for the improvements at this Haseltine Community Preserve location shall therefore be approximately \$3,800.

#### **9.3.7. Joe English Reservation.**

#### Brook Road Access Point

- Update information contained on the existing kiosk
- Include maps for Map Box
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The information displayed on the existing kiosk can be performed in-house; therefore, no cost for this item shall be incurred. The cost associated with replenishing the maps to be housed within the map box shall be allotted \$1,000 as a base number. Informational signage shall equate to approximately \$400 per sign, of which there will be five (5). The estimated cost for the improvements at this Brook Road Access Point location shall therefore be approximately \$3,000.

#### Chestnut Hill Access Point

- Map Box/Associated Maps
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The cost associated with replenishing the maps to be housed within the map box shall be allotted \$1,000 as a base number. Informational signage shall equate to approximately \$400 per sign, of which there will be five (5). The estimated cost for the improvements at this Chestnut Hill Access Point location shall therefore be approximately \$3,000.

#### **9.3.8. Arnold Trail.**

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this Arnold Trail location shall be approximately \$12,800.

#### **9.3.9. Boston & Maine Railroad Roadbed (B & M Trail).**

- Kiosk (to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)

- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The estimated cost for the improvements at this B & M Trail location shall be approximately \$12,800.

### **9.3.10. Pond Parish Trail.**

#### Pond Parish Road Access Point

- Removal of existing kiosk; replace with new to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The cost to remove and dispose of the existing kiosk and replace with a new 8' by 8' kiosk with red cedar roof decking and an affixed map box shall be approximately \$12,500. The cost associated with replenishing the Maps to be housed within the Map Box shall be allotted \$1,000 as a base number. Informational signage shall equate to approximately \$400 per sign, of which there will be five (5). The estimated cost for the improvements at this Pond Parish Road Access Point location shall therefore be approximately \$15,500.

#### Spring Road Access Point

- Removal of existing kiosk; replace with new to include a trail map affixed in a clear display case and signage depicting the rules/potential hazards of the trail area)
- Map Box/Associated Maps (affixed to kiosk)
- Informational signage pertaining to surrounding habitat and environmental/wetland sitings

The cost to remove and dispose of the existing kiosk and replace with a new 8' by 8' kiosk with red cedar roof decking and an affixed map box shall be approximately \$12,500. The cost associated with replenishing the maps to be housed within the map box shall be allotted \$1,000 as a base number. Informational signage shall equate to approximately \$400 per sign, of which there will be five (5). The estimated cost for the improvements at this Spring Road Access Point location shall therefore be approximately \$15,500.

### **9.3.11. Additional Trail Developments.**

In addition to enhancing the existing trail network, the Town of Amherst should consider expansion of the facilities to include a multipurpose trail near the Souhegan High School for walking and biking. This would be beneficial to students as well as serve as a passive recreation opportunity for uses aligned with those desired by survey respondents. As described by the Recreation Commission, there is land set aside for Conservation along the Boston Post Road. This location and other potential alternatives should be studied if such a trail is indeed desired. A study should also examine the need for such a trail based upon the statistics regarding modes of transportation used by students. Uses of this trail should be consistent with the desire for biking and passive recreation throughout the town, as well as afford students the opportunity bike or walk to school.

## **9.4. Conclusions and Recommendations**

With nearly 1,000 responses, the Amherst recreational needs survey provides valuable insight into the perceptions of the various recreational constituencies and stakeholders. As a result, we believe there is strong consensus, at least within the sampled age group, in the conclusion that there is a strong demand for improved and/or additional trail facilities throughout the Town to meet a number of diverse needs. These include hiking, walking, jogging, biking, snow shoeing, and off road recreational vehicles. Of these, the biggest concerns appear to be the need for bike trails. As stated previously, there is a perception that sufficient trails may already exist but they are perhaps poorly publicized, poorly marked, poorly mapped, or have inadequate trail head facilities such as parking, signage, rest rooms or shelter. We recommend a dedicated project aimed at trail facilities publicity and improvements. It appears, as shown within this report, that for relatively small expenditures, in the order and magnitude of approximately \$180,000, the Town can respond to the well-articulated demand. We believe that completing the above-mentioned trail improvements in conjunction with strengthening the “communication line” regarding these trails, a colossal difference would be made in the amount of usage realized by the trail network and the perception of these trail areas.

## **Section 10.0 – Combined Indoor Recreation Facility**

As noted previously, the town-wide recreation needs survey and Gale's facility evaluations identified an acute shortage of indoor gymnasium space. The ability to host indoor youth sports, intramurals and active adult programs is severely limited by gymnasium availability. This perception of the community was also clearly substantiated in Gale's Souhegan High School Needs Assessment.

In a related finding, there was strong consensus regarding the need specifically for additional basketball court space. It was difficult to discern from the survey results whether this was specifically demand for indoor or outdoor courts or both. Again, this was a perception substantiated in Gale's Souhegan High School Needs Assessment. This requirement may be mitigated in part by the development of outdoor courts at the high school, as proposed in this report.

In addition to the need for additional gymnasium space, there are a number of identified needs for other specialized indoor recreational spaces such as swimming, skating, indoor tennis, and fitness that are being met in part by local private facilities. Both individual families and some school programs pay-as-you-go for the use of these facilities. Unfortunately, a number of survey respondents cited the cost of such facilities as prohibitive, and their recreational needs are unmet. There is strong community interest in a community recreation center that houses a community pool and perhaps a sheet of ice. There is currently no fixed senior center in the community. A combined recreation center could also host the senior center and fitness facilities.

We conclude that the Town should consider the development of several specialized indoor recreation facilities. Such a complex would ideally include a Recreation Center that houses a gymnasium annex, fitness center, senior center, Recreation Department offices, and a series of classroom and instructional areas. Additionally, the Town recreation complex could include a municipal pool and/or a municipal skating arena.

### **10.1. Preliminary Spatial Requirements and Parametric Costs**

A combined municipal indoor recreation facility obviously implies a large capital outlay and significant operating costs. The architectural concepts should allow for a full build out of each functional area (pool, ice, gym, senior center, fitness center, etc.) in a modular fashion so that the development could move forward in a phased manner as decided upon by the Town. Below are some typical spatial requirements for municipal recreation facilities along with typical parametric per square foot costs. These estimates are only intended to provide a sense of the overall development magnitude and not suitable for site planning or budget development.

<b>Building Element / Module</b>	<b>Area Req.</b>	<b>Unit Cost (RS Means)</b>	<b>Cost</b>
<u>Recreation/Fitness/Senior Center</u>			
Municipal Recreation Offices	1,000	\$179/sf	\$ 179,000
Gymnasium	15,000	\$174/sf	\$ 2,610,000
Fitness Center	4,500	\$192/sf	\$ 864,000
Senior Center	1,500	\$179/sf	\$ 268,500
Meeting Rooms, 3	2,100	\$179/sf	\$ 375,900
		24,000/sf	\$ 4,297,400
<u>Ice Arena and Locker Rooms</u>			
Ice @200X85			
Lockers 2@ 1200SF			
Spectator seating at 200X20			
Mech room at 800SF			
<u>25 Meter Pool and Locker Rooms</u>	12,500	\$194/sf	\$ 2,425,000
Pool is 82'x60'			
Deck at 10 feet X perimeter			
Spectator Area @ 20X90			
Locker Rooms 2@1200SF			
Mech Room at 500SF			
		<b>Preliminary Cost</b>	<b>\$10,922,400</b>

As noted above, these cost estimates are only intended to provide a sense of the potential development costs and are not suitable for budget development. The costs are very sensitive to the actual facility program, design assumptions, site conditions, schedule, etc.

## **10.2 Indoor Facility Recommendations**

Given the apparent interest in a number of specialty indoor recreational facilities as evidenced by facility assessments, survey results, sensing session results, and the ongoing rental of such spaces from commercial facilities, there is at least enough indoor recreation center justification to warrant further study. We recommend that the Town of Amherst configure an Indoor Recreation Facility Study Group, and that this group address the following issues / questions:

- What are the program / functional requirements which make best use of a municipal indoor recreational facility?
- Given the intended program, what is a typical building massing / configuration?
- Where are the candidate sites for such a facility within the Town?
- What are the likely development costs for such a facility?
- What are the typical revenue streams and operating costs of such a facility?
- What are the potential savings (rental fees, transportation, etc.) associated with such a facility?
- What are potential funding sources and is such a development fiscally feasible?
- How could private/public partnerships be used for funding purposes, what is the process, and who are potential candidates for such a partnership?

It is recommended that the Indoor Recreation Facility Study Group incorporate membership from outside the Recreation Department to include the Souhegan High School, the Town Planning Department, and interested Amherst seniors.

### **Section 11.0 – Recreation Program Enhancements**

Results of the recreational needs survey indicate a strong demand for expansion or enhancement of community recreational education programs. It appears that the town currently offers a variety of such programs. However, common perception signifies that the demand may result from lack of awareness, cost effectiveness, targeted age groups, or scheduling. Based on survey responses, the demand appears to be for programs falling into the categories of arts and crafts, performing arts, and adult education. Specifically, there is demand for activities such as yoga, culinary arts, line dancing, creative writing, safety training, basket weaving, music/drama programs, and foreign languages. Common perception seems to be that there are not a sufficient quantity or variety of programs offered to teenagers, adults, and seniors.

The Town of Amherst schedules a wide variety of recreational programs, which can be categorized as active recreation, environmental, culinary, performing arts, or education. The existing programs are scheduled seasonally and offered three (3) times per year. Generally, the program fees are a per-session cost and

are more inexpensive for residents of Amherst as opposed to non-resident participants. It is apparent that the majority of programs are youth oriented and are based on active recreation. Those that are offered for adults are typically sports leagues, education based programs, or culinary arts. The programs targeting youth and adults are generally much broader in variety than those offered to high school age children and senior citizens. While recreation programs for senior citizens are limited in both quantity of programs and variety of options, those geared towards high school age children are nearly non-existent.

Survey participant responses indicate that active recreation programs are the most utilized, followed by environmental programs held at the P MEC. Of the survey participants indicating they have not partaken in any of the recreational programs, the most common reasons for this appear to be a result of scheduling, lack of interest, lack of awareness, or financial burden. The recurring theme throughout the survey and sensing sessions is lack of awareness of the recreational programs offered by the Town.

The Department of Recreation publishes three (3) brochures per year, each describing the programs and scheduling for the season offerings. The brochure is published as an insert in the Amherst Citizen, as an online document on the Department's website, and through distribution in the schools. Additionally, the environmental program offerings are published as a separate pamphlet and advertised on the P MEC website, as well as through distribution to school students. The Recreation Department has also established membership on several social networking sites, on which advertisements and announcements can be posted.

The majority of the recreational programs are held either at town athletic fields, Amherst Middle School facilities, Souhegan High School Annex, or at the P MEC. Of these, the programs held at athletic fields and at the P MEC seem to be utilized more than the other programs. It is also apparent that the facilities are generally in suitable condition for the respective programs held within them. Sports leagues and active recreation programs are held throughout town and school-owned fields, whose conditions have been assessed in this report. With exception of the environmental programs, the majority of the non-active programs are held at the Amherst Middle School and few at the Souhegan High School Annex, both of which seem to have basic amenities but meet the program needs. Based on the results of the survey, the P MEC seems to be underutilized and has potential to sustain more activity given the apparent interest and demand for educational programs.

Based on an assessment of current offerings, it is evident that the Recreation Department provides a significant amount of recreational education programs. However, an evaluation of needs has indicated that such programs are in

demand. Based on the perceptions of those participating in the survey and sensing sessions, the recognized areas of improvement are in publicity, targeted age groups, and variety of programs.

It is evident that many survey participants have not participated in recreation programs sponsored by the Town. The most common reasons noted for this are scheduling and lack of awareness. Scheduling is a common challenge for families today that have busy schedules and this unfortunately may prevent interested residents from participating in extracurricular recreational events. However, we recommend that the Town of Amherst continue to take into consideration the scheduling of other previously Town or school sponsored events and request feedback and comments from those who are interested and may be a proponent of certain scheduling patterns.

Feedback from the Recreation Needs Survey indicates that participants prefer local newspapers, school websites/email, recreation website/e-blasts, and school fliers as the methods for obtaining information in regards to recreation activities and events. The Recreation Department currently takes advantage of all of these forms of communication. Many participants indicated they are unaware of recreation programs, yet over half of participants responded that they would use the school website for information. We recommend that the Town continues to publish information about the recreation program through the schools both electronically and in print, as the majority of participants prefer communication through school systems. In addition, it is recommended that the Recreation website be advertised as an information venue.

In regards to age targeting, we recommend the Recreation Department consider broadening the activities for high school age children, young adults, and seniors. Based on the Needs Assessment, participants feel that these age groups do not have sufficient recreation program offerings in Amherst. We recommend broadening programs to incorporate the needs of these people. It may be worthwhile for the town to work with the high school in identifying the interests of the 13-18 year old age group. This may include a survey or sensing session to gauge interest and obtain feedback from the potential program participants. In regards to targeting elders, it is important to obtain feedback this age group's particular interests. We recommend holding sensing sessions to obtain feedback on the unmet needs of interested individuals.

It remains a challenge to provide popular recreation programs for seniors, as it is commonly expected that these programs be offered free of charge, yet the funding is low for such activities. We understand that several adult programs are offered at the library and funded by the Town and the "Friends of the Amherst Town Library" for no fee. These programs include yoga, crafts, and various other recreational education programs. This may be a factor in the limited participation in Recreation Department programs, which require a fee, while those funded by the Town and Friends of the Library do not.

The P MEC is a resource that we recommend enhancing to help meet the needs of those interested in recreation programs. It currently holds events for environment-based learning activities for children; however, it has potential to be used for passive recreation activities that are in demand. We recommend working with the P MEC to define programs that would appeal to high school age students, adults, and seniors and focus on the unmet passive recreation activities such as yoga, arts and crafts, or performing arts. The proximity of the P MEC to the Joe English Reservation allows for expansion of program to include passive recreation such as snowshoeing and trail-related activities. These opportunities would be conducive to the Trail Orientation Program which was recommended as additional programming in Section 9.2. As indicated in the survey results, a challenge in attracting people to the P MEC is the strong focus on environmental interest programs. Broadening these activities to include passive recreation is likely to attract more participants to the P MEC.

These recommendations are based on the challenges in program awareness, age group targeting, and broadening of program activities. As recurring responses in the survey, these recommendations may target the unmet recreational needs of the Amherst residents. Collaboration with schools, incorporating interests of high school students and senior citizens, broadening of program variety, and enhancement of the P MEC may improve success of the Recreation Program.

### **Section 12.0 – Baboosic Lake Waterfront Area Enhancements**

It is apparent that the waterfront facilities at Baboosic Lake are considered to be an important but underutilized recreational facility. Based on the condition assessment performed by Gale and reported in Section 2.2.1.7, the waterfront area is in fair condition and appears to be effectively using the area to the extent possible given the spatial constraints. Recommendations derived from the condition assessment include a water quality study, maintenance and safety issues at the concession building, parking lot, restroom building, and passive recreation area.

Nearly 100 survey respondents noted the need for significant improvements at the waterfront area. The most common improvement suggestions were in regards to water quality, sand/bottom quality, snack bar improvements, boat launch capabilities, and general maintenance. Based on these results, we believe that improvements made to the Baboosic Lake Waterfront area would prove to be a valuable recreational resource for the Town.

Based on waterfront area renovations designed by Gale in the past, added value to waterfront recreational areas have resulted from improvements to accessibility(to include beach and water access), parking, landscaping, building enhancements, stormwater mitigation, signage, playground improvements, and other amenities (horseshoe pits, picnic tables, permanent grills, benches, etc.).

We believe that similar improvements made to the Baboosic Lake Waterfront area could result in facility improvements sought by community members.

Gale recommends conducting a water quality study prior to making significant site improvements. As this was a common concern of the survey respondents, we feel that added value would be limited if water quality was not addressed. Site improvements may include renovating the parking lot and stormwater structures, creating ADA accessibility to the waterfront and buildings, renovating the playground and passive recreation area, and providing additional recreational equipment (horseshoe pits, beach volleyball pit, tables, benches, grills, water fountains, etc.). Additionally, the concessions building and restrooms should be renovated to meet code requirements and provide improved levels of service. These renovations might include:

- Replacement of concession building equipment
- Exterior and interior repainting (both buildings)
- Replacement of interior shelving units at concession building
- Interior cleaning (both buildings)
- Replacement of plumbing equipment (where necessary)
- Signage and landscaping upgrades
- Stormwater structure enhancements/repairs
- Regrading of the parking lot
- Waterfront and building accessibility renovations

Finally, there are numerous and diverse stakeholders involved in any plan to update the facilities at Baboosic Lake. They include users, abutters, public safety staff, recreation staff, DPW staff, Amherst Conservation Commission, etc. We recommend that the Town configure a working committee, representative of these stakeholders, to study the waterfront area and water quality in more detail. The goal would be to prepare a program of improvements and related cost estimates that represent the best and highest use of the small parcel to best meet the needs of the community.

The following is a very preliminary rough cost estimate of these improvements.

<b>Building Element / Module</b>	<b>Cost</b>
<u>Building Renovations</u>	
Concession Building (Renovations/Enhancements) (taken as \$40 / SF)	\$ 64,000
Restroom Building (Minor Renovations) (taken as \$25 / SF)	\$ <u>7,000</u>
	\$ 71,000

Site Renovations

Parking Lot/Accessibility Renovations	\$	70,000
Drainage Structures	\$	<u>10,000</u>
	\$	80,000

Passive Recreation Area

Replace Permanent Grills	\$	3,000
Renovate playground	\$	9,000
Additional Amenities	\$	<u>18,000</u>
(benches, tables, signage fountains, horseshoes)	\$	26,000

**Preliminary Cost** **\$ 181,000**

These cost estimates are only intended to provide a sense of the potential development costs and are not suitable for budget development. The costs are very sensitive to the actual facility program, design assumptions, site conditions, schedule, etc.

An additional recommendation for the Baboosic Lake Waterfront area is derived from the desire for additional ice skating space. Although there is currently an ice skating facility at Middle Street, it is an informally maintained space and offers no amenities to users. We recommend that a study group be formed to determine the feasibility of utilizing the otherwise unused parking, open space, and amenities that the Baboosic Lakefront offers in the winter season. The group should aim to answer the following questions in regards to a Baboosic Lake skating area:

- Does the lake achieve an adequate layer of ice for skating in the cold weather months?
- What are the additional costs for maintaining the restroom facilities and/or the concession building in the winter months?
- What are the maintenance and operation needs of a skating facility at Baboosic Lake?

**Section 13.0 – Peabody Mill Environmental Center Program Enhancements**

As noted previously, the Joe English Reservation is located at the end of Brook Road, and contains a trail network of approximately 10 miles. This area affords activities such as hiking, hunting, cross country skiing, and snowshoeing and is managed, operated and maintained by the Amherst Conservation Commission (ACC). The adjacent Peabody Mill Environmental Center (PMEC) building

houses educational and environmental programs, yoga classes, and other such programs. There are two (2) accessory structures located on-site, one (1) of which is historic (the Sawyer cottage). These accessory structures house classes as well. Overall, the site is well maintained, in good condition, with only minor cosmetic and routine maintenance deficiencies /recommendations noted.

Survey respondents and sensing session participants indicated that both passive recreation opportunities and recreational education needs are not fully met. Based on the condition assessment of the P MEC, the facilities are in good condition and afford the use of both indoor and outdoor passive recreation and educational opportunities.

As previously mentioned in the Recreational Education Programs section, the P MEC appears to be underutilized due to the limited scope of program offerings and targeted age of participants. It is apparent that of those respondents who have used the P MEC, the opportunities it affords are valuable to community members and therefore we believe that this asset should be utilized to the maximum extent possible.

Given the proximity of the Joe English Reservation trail head to the P MEC, improvements made to the P MEC facilities as well as enhancements to the recreational programs (as previously described) should together better accommodate many of the under-resourced recreation needs of the community. Improved coordination between the Amherst Conservation Commission and the Recreation Department may prove to be the catalyst for maximizing the use of the P MEC and the Joe English Reservation.

Although the facility is recently renovated and is in generally good condition, the P MEC could improve on parking accommodations and improve ADA compliance. Currently, the parking lot is not laid out to provide an adequate parking facility. As constructed the parking facility includes a stone dust surface, with few formal drainage structures and accommodates a limited amount of vehicles. This is inadequate to support an expanded educational recreation program, and does not allow for stormwater parking lot runoff treatment prior to release off site.

The facility is not currently ADA compliant. Two (2) handicap parking spots and an accessible ramp are provided for access to the upper level room at the P MEC. However, no access to the lower level is available to those unable to use stairs. As a result the lower level cannot by right be used as public class or meeting space. This deficiency could be resolved by providing accessibility to both the upper and lower levels from the parking lot. The addition of a code compliant walkway or ramp to the lower level of the main P MEC building would enhance the serviceability of the facility.

Due to the proximity of the Joe English Reservation, the P MEC is ideal for the combined instruction of passive recreation and educational programs. The Joe

English Reservation is also in good condition and improvements should consist of signage, trailheads, maps, and activity specific information for use on the trails.

The main facility is in good condition and should be used to the maximum extent possible to host a wide variety of educational programs as described in the Report section on recreational education. There are an additional two (2) buildings and a classroom seating area on site designed to accommodate small groups in an outside environment. The buildings are also in good condition, but require maintenance, cleaning, and minor exterior improvements. The buildings are not accessible, and their use should be programmed with this constraint in mind.

It is fair to acknowledge that the mandates of the Amherst Conservation Commission which manages the Joe English Reservation and that of the Amherst Recreation Department, which now manages the P MEC, are somewhat divergent. While the ACC is charged with conservation and preservation of natural resources (and this naturally implies restricted use and access), the ARD is mandated to maximize the recreational opportunities of its constituents. The P MEC facility is a vitally important Town resource that appears to be underutilized. Coordination between the Recreation Department’s programs and the Amherst Conservation Commission should be facilitated to expand the serviceability and availability of the P MEC and Joe English Reservation and the recreational opportunities within. This could include joint membership on respective commissions and boards.

General recommendations for improvements to the P MEC are as follows:

<b>Building Element / Module</b>	<b>Cost</b>
<u>Building Renovations</u>	
Sawyer Cottage	\$ 4,000
	\$ 4,000
<u>Site Renovations</u>	
Parking Lot/Accessibility Renovations	\$ 20,000
Drainage Structures	\$ 3,000
	\$ 23,000
<u>Passive Recreation (covered in trails section as well)</u>	
Trailheads/maps/signage	\$ 15,000
Trail maintenance	\$ 5,000
Recreation Equipment	\$ 10,000
(for participant use, instruction, educational materials)	\$ 30,000
<b>Preliminary Cost</b>	<b>\$ 57,000</b>

These cost estimates are only intended to provide a sense of the potential development costs and are not suitable for budget development. The costs are very sensitive to the actual facility program, design assumptions, site conditions, schedule, etc.

#### **Section 14.0 – Playground Facility Recommendations**

Based on results of the meetings with recreation staff, the Needs Assessment Survey and sensing sessions, it is apparent that playgrounds are important, heavily utilized recreational facilities in the Town. Gale visited each of the playground facilities and completed a general assessment of the serviceability and utility of each.

There are currently four (4) playgrounds in use in the Town of Amherst. The condition assessments conducted by Gale along with recommended improvements are detailed in our previous facilities assessment report., provided under separate cover. As noted therein, the cemetery field playground is in generally good condition, is heavily used, and meets the needs of the community for the intended level of play. We understand that the Cemetery playground, along with the playing fields will be taken out of service in the future, and any project to replace these lost facilities should certainly include the development of a new playground facility.

The playground located at the Baboosic Lake Waterfront is in fair condition and is in need of maintenance and minor repair. The Clark School playground is in poor condition and the associated play structures are in need of replacement and repair due to a potential safety hazards. The final playground, located at Wilkins School, is in generally good condition with exception of maintenance and minor additions.

The playgrounds at the Wilkins School and Clark School are under ownership of the school district and therefore are not controlled by the Recreation Department. In addition to the Cemetery Fields playground, the Baboosic Lake Waterfront playground is also a facility owned and maintained by the Recreation Department.

Due to the current need for playground facilities and the pending loss of the playground at Cemetery Field, it is a high priority of the Recreation Department to incorporate these facilities into any potential future recreational complex development. The ideal facility should provide two somewhat separate play areas organized and equipped to meet the play needs of two different age groups; the 2-5 year old age group as well as the 5-10 age group. With the necessary repairs and maintenance of the remaining three (3) playgrounds, and the addition of a playground upon any future proposed recreation complex development, the playground needs in the Town will be met.

<b>Element</b>	<b>Cost</b>
Wilkins School Playground Repair (surfacing replenishment and maintenance)	\$ N/A
Clark School Playground Repair (equipment repair, surfacing replenishment)	\$ N/A
Baboosic Waterfront Playground Repair (surfacing and timber edge repair)	\$ 9,000
New Playground	\$ <u>62,000</u>
<b>Preliminary Playground Program Cost</b>	<b>\$ 71,000</b>

These cost estimates are only intended to provide a sense of the potential development costs and are not suitable for budget development. The costs are very sensitive to the actual facility program, design assumptions, site conditions, schedule, etc.

### **Section 15.0 – Facilities Management and Maintenance**

The implementation of a Master Plan to expand/enhance recreation facilities is only effective if the work completed is properly maintained. This section of the report summarizes those activities that are routinely accomplished in the maintenance of high quality athletic fields, and provides recommendations in regards to maintenance activities, resources, and budget for proper maintenance of the athletic fields in the Town of Amherst.

Specific turfgrass management practices vary throughout an athletic complex according to the type of play that is occurring in each locale and according to the stage of development of the athletic fields. Soccer, softball, and baseball each dictate a different set of conditions that require unique management approaches. Additionally, specific areas within soccer fields in particular are subject to different stresses (e.g., goal mouths versus midfield and side line areas). Athletic complexes cycle through various stages of development including construction, grow-in, and maturity, each requiring a different approach to management.

A general description of a typical (mature) athletic complex turfgrass maintenance program is as follows:

#### **Mowing**

Turfgrass in areas of play is mowed at least weekly to provide a suitable playing surface. Regular mowing practices enhance turf density, color, texture, root development, wear tolerance, and other key aspects of turf quality. Mowing heights are adjusted from 2.5 inches from the growing season until mid-July, 3.5 inches from mid-July to mid-September, and

then gradually brought back down to 2.5 inches. Clippings are either mulched and left or collected and disposed depending on the height of cut and thatch density.

### **Aeration**

Aeration alleviates compaction and develops deep-rooted turf. It is accomplished by creating spaces in the turf, which allow moisture, nutrients and oxygen to penetrate to the root zone. Aeration also breaks up thatch, which helps contribute to the organic content of the soil and breaks the mat on the soil surface. High use fields should be aerated 2-3 times per year.

### **Irrigation**

The irrigation season typically runs from June through August. During that period, each field footprint should receive one-half (1/2) inch of irrigation per week and be adjusted in accordance with weather patterns. For a typical 90,000 SF soccer field, this equates to 400,000 – 500,000 gallons per year.

### **Topdressing**

Topdressing is applied periodically as a soil amendment, to maintain a smooth playing surface, and to vary the root zone particle size distribution. Top dressing adds soil, sand or other beneficial organic material and soil amendments (as determined by turf needs based on agronomic testing) to the surface of the turf. It should always follow core aerating.

### **Fertilizing**

Fertilizing is done in order to provide micronutrients to the soil and acts as a “food” for the turf-grass plant. Fertilization should generally be done in the early spring and summer, and supplemented on selected fields in the early fall, as needed. This ensures that sufficient nutrients are available to develop healthy root zones during the peak growth period of May and June. Fertilization should be directly related to soil tests performed on an individual field. Once soil sample data has been obtained, fertilizer with the proper nitrogen/phosphorus/potassium ratio should be obtained and applied at recommended rates. Low solubility fertilizers applied only at rates which ensure uptake should be used to minimize groundwater or surface water impacts.

### **Lime Application**

Lime application is generally performed in late November as it typically takes up to 6 months to breakdown. Lime should be applied to soil based on the results of the annual soil testing.

**Overseeding**

Over-seeding is recommended for athletic fields that are used in both the fall and spring seasons. Over-seeding is the spreading of seed over bare areas or areas that are stressed in order to enhance (fill in) stressed or bare areas, to establish new turf, or to improve the conditions of the turf.

**Pesticide Application**

Pesticides should be used sparingly and by licensed applicators. Chemicals used must be of recent manufacture, and have quick and effective results. Chemicals that may present health hazards shall not be used. Approved pesticides can be found on the state university system website, and change periodically. Pesticides should not be applied as a prophylactic, but rather in response to an observed pest or disease, and tailored accordingly.

The resources needed to carry out the recommended maintenance regimen have been calculated on a per field basis as required for implementation of the typical maintenance regime. This calculation provides an estimate of the resources, manpower, equipment and materials to perform each activity on a typical 90,000 SF natural turf playing field. In addition to material costs, this calculation accounts for labor and overhead costs as well as equipment utilization rates and capitalization/depreciation. See table below for a summary of this calculation.

Maintenance Activity	Operational Costs	Annual Quantity (all field types)	Quantity (rect. fields)	Quantity (diamonds)	Total Cost (per field)	Field Specific Costs - Rect	Field Specific Costs - Diamonds
Equipment Maint, Services, Inventories, Training	\$3,560.00	1			\$3,560.00		
Fertilizer	\$1,254.00	1			\$1,254.00		
Soil Sampling, Spring Inspection, Work Order	\$50.00	1			\$50.00		
Irrigation (well supply)	\$0.00	13			\$0.00		
Lime Spreading	\$574.00	1			\$574.00		
Aeration	\$288.00	2			\$576.00		
Topdressing	\$1,504.00	1			\$1,504.00		
Overseeding	\$963.00	1			\$963.00		
Spring Cleanup, Servicing, Inspection, Sampling	\$1,316.00	1			\$1,316.00		
Inspection	\$1,368.00	1			\$1,368.00		
Cut grass, Empty Trash, Restripe, Rake out infield	\$444.00			24	\$0.00		\$10,656.00
Cut grass, Empty Trash, Restripe, Rake out infield	\$407.00		24		\$0.00	\$9,768.00	
Weed and Pest Control	\$363.00	1			\$363.00		
Misc Repairs	\$655.00	1			\$655.00		
				subtotal	\$12,183.00		
				General Subtotal		\$12,153.00	\$12,153.00
				Field Specific Cost		\$9,768.00	\$10,656.00
				TOTALS		\$21,921.00	\$22,809.00
						(Per Rect. Field)	(Per Diamond)
**Maintenance activities based on typical recommended maintenance regimen							
**Operational costs include resources, manpower, equipment, and materials							

Using these unit costs, the implementation of a typical maintenance program has been calculated for the inventory of fields in the Town of Amherst and is tabulated below.

Field Type	Annual Field Maintenance Cost	Amherst Field Inventory (prior to Master Plan)	Amherst Field Inventory (after Master Plan)
Multipurpose Rectangular Field	\$21,921.00	10	12
Baseball/Softball Diamond	\$22,809.00	6	7
<b>Total Maintenance Cost</b>		<b>\$356,064.00</b>	<b>\$422,715.00</b>

Note: Inventory of fields includes only those fields maintained by the Amherst Recreation Department.

The Amherst Field Maintenance Staff provides a well planned maintenance routine on a field by field basis throughout the entire inventory of Amherst fields. Given the small crew and limited equipment availability, and the high demands placed on the fields themselves, the quality of the turf on the Amherst fields is outstanding, and is a direct result of the appropriate and consistent maintenance routine performed. Based on a series of interviews with the field maintenance staff, the following is a general description of these activities:

**Soil Testing**

As recommended, an annual soil test is performed at each field and the samples sent to a testing agency for analysis of nutrient deficiencies and recommendations on fertilizer application. Additionally, the Foreman uses a cost effective soil probe test each month to analyze root depth and evidence of thatch to determine the prevailing maintenance protocols necessary.

**Mowing**

The Amherst fields are consistently mowed to a 3" height, encouraging deep root growth. Mowing is performed twice per week and adjusted seasonally and according to weather patterns. As is currently recommended, the clippings are left on the field as a low level source of nutrients that are beneficial to turfgrass management.

**Aeration**

The Amherst Maintenance crew performs aeration approximately 3 times per month on each field, and often once per week during heavy usage. As resources allow, this excessive amount of aeration is beneficial and enhances the quality of turf during heavy usage. As recommended, the plugs remain on the field and act as a cost-effective topdressing method to enhance thatch decomposition and smooth the playing surface.

**Irrigation**

All of the fields, with exception of Upper and Lower Wilkins, are irrigated by Rainbird heads and controllers, each adjusted weekly and seasonally according to the condition of the turf. The water used for irrigation at each field, with the exception of Spaulding Field, is provided by on site wells. Winterization of the irrigation systems is provided in house by the Maintenance Crew.

**Fertilization**

Based on the soil test results for each field, fertilizer with the proper ratio of micronutrients is applied to each field on an individual basis. This ensures that the soil is receiving the appropriate amounts of nitrogen, phosphorus, and potassium to stimulate and maintain growth. The Amherst fields are fertilized approximately 2-3 times per year.

**Lime**

As recommended, the Amherst fields receive lime application based upon results of the soil testing and applied as needed.

**Pesticide/Herbicide Application**

The Amherst Recreation Maintenance Foreman is certified in pesticide application. State regulations require that turfgrass pesticide applicators

be certified after passing a written examination and that they continue their education in the areas of pest management, pesticide handling, and environmental protection. The Maintenance Foreman is diligent and knowledgeable in the identification of pest species necessary to anticipate and address likely pest problems.

The Amherst Recreation Department employs a Maintenance Foreman who is highly knowledgeable in turfgrass management and takes pride in the quality of the Amherst athletic fields. Without this level of quality maintenance management, the extremely high demand on the Amherst athletic fields would be evident through poor quality playing fields. Field usage hardly ever decreases to meet the allowable resources of the maintenance program. Instead, field usage is ever increasing and it is the expectation that the quality of the turf can sustain these uses. While the Maintenance Department has limited staffing and equipment resources, the current maintenance regimen is producing outstanding results. This can be credited to the extensive experience of the Foreman and the notable dedication to the quality of the Amherst athletic fields. While the Maintenance Department is confident in their ability to maintain the quality of the fields with an increase in demand, their limited resources may become more significant upon implementation of the Master Plan.

The Town of Amherst currently provides a budget for Maintenance Department which comes from two separate funding sources. The General Fund is based on tax revenue and the Revolving Fund is generated by user fees from the Recreation Department programs. The budget is used in part to provide the maintenance services to the fields in the Town of Amherst. Maintenance activities under the responsibility of the Recreation Department include maintenance of all town athletic facilities and those at Amherst Schools, with the exception of the Souhegan High School facilities. Maintenance of the athletic fields at the Amherst Schools are limited to the natural turf fields, and do not typically include the playgrounds or facility maintenance. However, several Town playgrounds and Recreation Department facilities are also the responsibility of the Maintenance Department. The following is a tabulation of the facilities understood to be the responsibility of the Recreation Department Maintenance Crew.

Facility	MP Rectangular	Diamond	Other
Amherst Middle School	4	3	
Spaulding Field	2	2	
Baboosic Lake Beach	0	0	Buildings/Grounds
Cemetery Fields	2	1	
PMEC	0	0	Buildings/Grounds
Davis Lane Tennis Courts	0	0	Tennis
Wilkins School	2	0	
<b>TOTALS</b>	<b>10</b>	<b>6</b>	

The majority of the funding for maintenance activities comes from the General Fund, with some staffing and materials provided by the Revolving Fund. An estimate of the total budget allocated to the Maintenance Department is nearly \$141,800 annually. Data provided by the Amherst Recreation Department indicates that this generally includes staffing, equipment purchases and repairs, vehicles/gas, utilities, and supplies. This does not account for equipment depreciation and the cost of the equipment that is shared with the Department of Public Works or otherwise provided by the Town. Given this budget, it is less than half of the estimated maintenance costs associated with the typical recommended maintenance regimen for athletic fields. A comparison of the costs is tabulated below.

	Prior to Master Plan	After Master Plan
Industry Standard Estimate	\$356,064.00	\$422,715.00
Amherst Budget*	\$141,827.00	Unknown

Note: Inventory of fields includes only those fields maintained by the Amherst Recreation Department.

\*Amherst Budget is based on an estimate provided by the Amherst Recreation Department, and may not include materials and resources otherwise provided by the town outside of the Recreation Department budget.

Based on an assessment of the current maintenance program within the Amherst Recreation Department, recommendations for improvement of the turfgrass are minimal due to the outstanding quality of the majority of playing fields and the expertise of the maintenance staff. However, there are several constraints and demands placed on the Maintenance Department which affect their use of resources and results of their efforts.

Due to the fact that the Souhegan High School fields and the Amherst Recreation Department fields are not maintained by the same entity, resources

which could potentially be used cooperatively are not. This is not uncommon, and typically would not be an issue. However, the use of the Bean fields by the Souhegan High School population is expected, while the reciprocation often nonexistent due to scheduling issues. This added demand placed on the Town fields requires an increase in maintenance efforts by the Recreation Department, with no rest period for the fields.

Based on the athletic field improvements recommended throughout this Master Plan, the majority of the turfgrass quality on Amherst Recreation Department fields is high and the needs are minimal. The fields at Lower Wilkins do not meet this quality. The Maintenance Department does not provide these fields with the same level of resources due to the lack of irrigation available at the site. Use of typical resources on these fields would be wasteful in the absence of irrigation. However, once provided irrigation, the Maintenance Department is confident that these fields could be provided the resources to meet the quality and demand placed on the higher quality fields. This would significantly increase the usage of these fields.

The Amherst Recreation Department has a very low budget in comparison with the recommended budget for maintaining the quantity of fields under the responsibility of the Town. While this budget is limited due to the constraints felt by the overall operations of the Recreation Department, their resources are used in the most effective way possible. While the majority of the maintenance activities require use of a tractor, the most constraining resource is the limited availability of the one tractor owned by the Department. Use of some shared staffing and equipment with the Department of Public Works helps to relieve the budget needs of the Recreation Department. The Recreation Department minimizes the staffing budget by hiring only 1 full time employee and employing part time help seasonally.

Maintenance needs of the athletic fields upon implementation of the Master Plan will be increased significantly. While the existing program is estimated to be under budget by over \$214,000 this deficit increases to nearly \$281,000 once the Master Plan is implemented. As previously stated, the maintenance cost estimates are conservative, as the current Recreation Department budget may not be entirely all inclusive of the expenses.

The possibility of combining resources with the Souhegan High School to provide relief and rest periods for the fields may need to be discussed. Additionally, providing the lower quality fields at the Wilkins School with the means to be maintained effectively will allow for the Maintenance Department to sustain increased usage of these fields. Finally, additional equipment such as a tractor, which is involved in the majority of the maintenance activities, would be beneficial now, but will most likely be necessary in the maintenance of fields upon implementation of the Master Plan. The ability to balance the maintenance activities of athletic fields and provide a consistent turfgrass

management program will be the key to sustaining the heavy usage of the Town athletic fields.

### **Section 16.0 – Non-Traditional Funding Sources.**

As municipal budgets and hence services have declined, communities have found unconventional means of sustaining programs, and maintaining and even expanding facilities. Several of these are discussed below.

#### **16.1. User Fees, Sport Organizations and Booster Clubs**

Pay as you go fee based programs have been the norm for nearly a decade. Semi-autonomous youth sport programs now fund or perform much of the routine facility maintenance and contribute to the enhancement or development of new facilities. Booster clubs and youth sport organizations, under an agreement with the Town, now commonly develop facilities on public land under a private procurement (outside public bid laws) and gift the resultant facility back to the Town.

#### **16.2. Public Private Partnerships**

Public Private Partnerships have also become commonplace as a means to get things done in a climate of reduced municipal funding. In many instances, commercial recreation developments have taken place on public land with expedited permitting by “for profit” companies in return for granting favorable fee and/or scheduling rights to the Town under the terms of a contractual agreement. These developments require a public RFP solicitation of potential developers and typically involve a “design, build, operate and maintain” lease of 50 years or more.

Public Private Partnerships can also include non-profit private partners such as small colleges, YMCAs or Boys and Girls Clubs. Salve Regina College of Newport, RI is landlocked but has growing athletic programs, while Middletown, RI middle school has large land holdings but poor facilities and lacks funding. In a Public Private Partnership, a private company develops state of the art facilities on public land and enters into a use agreement with the school district.

#### **16.3. Advertising and Naming Rights**

Although traditionally frowned upon by most communities, it has become more acceptable in the current economic climate to consider corporate advertising and issuing of facility naming rights. We are aware of significant municipal projects with major corporate donors such as Roche Brothers, Boch Toyota and Citizens Bank. The resultant facilities often

bear the name of the major donor, e.g. Citizens Bank Field. This often requires a change in Town policy or regulation.

When a significant donation is provided, it often makes sense to have the donor pay directly for some well-defined, stand-alone aspect of the project such as the athletic lighting. In this way it can be procured as a private solicitation precluding the requirement to pay the contractor prevailing Massachusetts public wage rates and allowing for the procurement of a specific proprietary product, e.g. MUSCO Lights.

#### **16.4. Developer Impact Mitigation**

Development or funding of recreation facilities can also be mandated of private developers by Town permitting boards (Zoning or Planning). The rationale for these “off site impact mitigation” conditions is that the developer, by increasing the housing stock in the community, is increasing the demands made of already severely constrained municipal recreation facilities. Communities have found this as an effective means of increasing the recreation facilities consistent with the growth of the community.

We recommend that the Town of Amherst Recreation Department meet with the Town permitting boards and request consideration of recreation related permitting conditions for future development.

#### **16.5. Local Fund Raising**

Community fund raising can have a large impact on athletic field project funding. The sale of donor recognition unit pavers, or centrally located stadium seating can result in substantial funds. The recent renovation of high school athletic facilities in Cohasset was funded in large part from community fund raising with brick paver donor recognition.

#### **16.6. In Kind Services**

Community fund raising groups should identify those contractors within their community that provide goods and services inherent in a field development project. Contractors or suppliers who specialize in landscape construction, site development, tree clearing, asphalt paving, aggregates, loam, or site furnishings can often be called upon to donate goods or services to community projects. Gale designed and permitted municipal athletic complexes in Kingston and Wrentham built largely with “in-kind” labor and materials. Such projects usually progress slowly and are a challenge to manage, however the ends often justify the process.

### **16.7. Public and Private Grants**

There are many grant opportunities available for the development of primarily new or expanded athletic facilities. US Soccer is perhaps the best example of an organization looking to foster the growth of its sport and willing to invest in new or expanded facilities. The Mass Youth Soccer complex in Lancaster, MA was built largely based on grants from US Soccer Association. Similarly, the USTA is providing funding for new and expanded tennis facilities, particularly those incorporating the new reduced size “Quickstart” courts intended to foster interest in tennis in young children. Usually grant applications for these and similar organizations require mature feasibility studies and schematic level plans and cost estimates.

## **Section 17.0 – Current Regional Recreation Trends**

An important element of a municipal recreation master plan is an assessment of that plan in relation to current regional recreational management or program trends. Within the New England region, a number of distinct recreation program trends have arose which warrant consideration in the finalization of the Amherst Recreation Needs Assessment and Master Planning effort. These include:

- Increased emphasis on regional trail systems to support a variety of activities such as hiking, jogging, biking, cross country skiing, and snow shoeing;
- Increased emphasis on municipal fitness and wellness centers;
- Reliance on unconventional or non-traditional funding sources such as public-private partnerships and naming rights, and on fee based, pay as you go, services;
- Increased demand for athletic field space supported by a fixed population of fields leading to increased reliance on synthetic turf facilities.

Each of these trends are discussed below in relation to how they are addressed in the Town of Amherst recreation study.

### **17.1. Regional Trail Systems**

Consistent with the regional trend, the Amherst community underscored its perception of the relative importance of a network of community trails. As discussed in detail in Section 9.0 of this report, the Town of Amherst has an existing trail network offering over twenty-four (24) miles of multi-purpose trails. The report offers numerous recommendations on how these facilities can be enhanced and made more visible to the community. In addition to facility and communication improvements, this report concludes that the Recreation Department, in concert with the Conservation Commission, needs to play a more direct role in the management of these facilities, the administration of related programs, and the implementation of a quarterly trails orientation program for potential users. Additionally, we recommend that the ongoing effort to increase the interconnectivity of the trail network both within the Town and with adjacent communities be sustained.

## **17.2. Fitness and Wellness Programs**

Based on the growing childhood and adult obesity concerns, and government and societal emphasis on the development of healthier lifestyles, there is increased emphasis on municipal recreation based fitness and wellness programs and facilities. These programs and facilities are typically fee based and often the facilities and programs themselves rival commercial health clubs to the extent that commercial interests complain about the tax advantages and use of public facilities made of the municipal programs with which they essentially compete. Fitness facilities often reside in existing public buildings such as schools, recreation centers, or senior centers and serve multiple purposes. They often afford residents access to weight and aerobic equipment, swimming facilities, indoor jogging tracks, dance/workout studios, and all of the amenities (lockers, showers, etc) typically required.

Municipal recreation programs are increasingly offering personal trainer access. This program is a fee based, pay as you go program in which the Town contracts or hires a personal trainer and schedules workout times for individuals or small groups. The trainer also typically conducts zumba, spinning classes, or other similar programs. The trainer also conducts periodic boot camps, which bring motivated individuals together at 6 a.m. each morning for an intensive workout program over a period of 30 days or so.

Municipal recreation programs are also planning and conducting anti-obesity campaigns usually involving community wide goal setting and tracking. Such programs can target specific age groups such as teens or seniors, or can focus on town or public school employees. They typically

have a catchy acronym based name and involve a substantial public relations campaign, and incentive awards.

The Amherst recreation study addresses this trend in several ways. First, the Souhegan High School Needs assessment identified the need for improved and expanded fitness facilities at the high school that should be developed as a community asset. The development of a full service wellness center is proposed at the current location of the high school art program and is estimated to cost \$465,000. The Souhegan master plan calls for the development of a 40 feet by 50 feet facility on two (2) levels (2,000 SF on each floor) equipped with state of the art strength and aerobic equipment, dance/workout studios, and related amenities. This fitness center is in addition to the auxiliary gymnasium described elsewhere in this report.

The master plan also calls for a study to consider the development of a community recreation center that could potentially feature a municipal pool, senior center, recreation offices, a teen drop-in center, and/or a sheet of ice. As part of its deliberations, the recreation facility studies group, once convened, should consider the inclusion of a community fitness facility either in addition to or in lieu of that proposed at the high school.

### **17.3. Increased Field Demand and Reliance on Synthetic Turf**

Many New England communities have seen sustained growth of school and youth sport programs relying on athletic field space. This growth is due to population growth, diversity of sports, and growth of women's sports. As an example, regionally, the fastest growing sport today is women's lacrosse. With this expansion of demand for field space, many communities like Amherst have constrained programs, and are expending valuable resources as they struggle to maintain over-capacity facilities. Many communities have addressed this issue in part by reliance on infilled synthetic turf fields. While the initial capital outlay is expensive, on the average of \$800,000 per field, these fields represent 2.5 to 3 natural turf field equivalents in terms of their ability to sustain demands with little maintenance and no detriment to turf quality or safety. Gale has consulted on over 100 such projects in New England and a half dozen in New Hampshire. The master plan for Souhegan High School calls for the development of two (2) infilled synthetic turf fields, one (1) inside the existing stadium track, and one (1) at the existing Simeon Wilson field. These fields will be able to accommodate many more uses (in the case of the stadium field over twice as many) than presently, and much of that demand will be shifted away from the front fields and the Bean field complex.

### **17.4. Privatization of Programs**

Like many aspects of municipal government, town recreation programs are increasingly reliant on private for-profit firms to operate various aspects of the program. The biggest use of privatization is in the area of facilities maintenance. Following a public bidding process based on a well crafted RFP which defines the comprehensive maintenance program requirements, the Town turns over scheduling and maintenance of its field (and often playground, hardscape and pool facilities, etc.) to a contractor. In the Town of Norwood, MA, after two (2) years of privatization of field maintenance, they conclude that it currently costs \$9-11,000 to maintain each field per year versus the \$20-24,000 previously, and that field quality has improved throughout.

#### **17.5. Spray Parks**

Municipal pools are challenging to develop and to maintain. They are initially expensive and are maintenance intensive. They have difficult ADA access challenges, and they require significant staffing to operate safely. Finally, the liability aspects of municipal pools, particularly related to very small children, are substantial. An increasingly popular alternative to municipal pools are spray parks and pads. Current site-specific custom designs offer great flexibility as they relate to program and budget. They are fully accessible, require little maintenance and staffing, and can be used concurrently by all age groups. Any new recreation complexes, such as that proposed at Stearns Road should consider the incorporation of a spray park. However, they are particularly attractive in more densely developed neighborhood settings like that at the Middle Street park skating area.

#### **17.6. Alternative Racquet Sports**

Another recreation trend is the introduction of new racquet sport programs. The “hottest” of these is Quickstart tennis. Quickstart tennis was developed by the USTA in response to data that suggested that young tennis players become easily frustrated on full sized-courts. The Quickstart court is a half-sized court. An existing court can be set up into two (2) Quickstart facilities. Additionally, there is considerable grant money available from the USTA for the development of dedicated Quickstart courts.

The other trend is the resurgence of badminton. Played at any age level, indoors or outdoors, the sport requires little setup cost, and affords a fun competitive workout. Historically a very popular sport in Europe and Asia, badminton halls have sprung up in the US and are attracting increasing numbers of participants. We recommend that the Town consider the development of several Quickstart courts in their tennis

program as the Souhegan High School and Davis Lane Tennis courts are renovated, and that ARD consider increased opportunities and emphasis on badminton.

### **17.7. Dog Parks**

Community Dog Parks are undeniably a municipal recreation trend. New facilities are large fully enclosed areas that afford the opportunities for dogs to socialize off leash. They provide amenities such as water stations, clean-up bag dispensers and receptacles, play structures, shade structures, etc. Although popular in many communities, Gale asked specifically about dog parks in both its needs assessment survey and in the various sensing sessions, and there appears to be little or no interest in Amherst. Clearly that is a function of the somewhat rural nature of the community and the readily available open space.

### **17.8. Other Specific Recreation Programs**

The two (2) other recreation programs that appear to currently be the hot commodities are in high tech communications and theater. Many recreation programs are offering education and training classes related to both social networking (Facebook, LinkedIn, etc) and personal communication. One Town program is called “iPhone, iPad, I Work”. Finally, discussions with regional recreation directors, and park and recreation literature and seminars, suggest a growing demand for theater, drama and dance programs beyond those offered in the school programs. While this is clearly not a new recreation offering, it is one which is receiving more emphasis and enrollment.

## **Section 18.0 – Overall Conclusions**

### **18.1. Amherst Recreation Department (ARD)**

The Amherst Recreation staff manages a vibrant and diverse program that is fully consistent with the expressed priorities and needs of the Town.

- The ARD aggressively schedules and maintains field facilities. Fields are well maintained and generally in fair condition despite seemingly unmanageable demands. The inclement weather policy is effective.
- The recreation education program is broad and responsive to “consumer” interests and needs to be sustained, and, where possible, reinforced/enhanced.

- Although ongoing communication efforts are multifaceted, there is still evidence to suggest that information management needs improvement, particularly in the areas of education classes and the trail program.
- The ARD should sustain current program offerings. New recreation programs need to target programs for teenagers as a top priority and seniors as a second priority.
- We recommend that ARD form two (2) study groups. One to assess the feasibility of a Town indoor recreation facility, and one to study improvements to Baboosic Lake.
- We recommend that ARD has increased responsibility for operation, maintenance, and management of the Amherst trail program in concert with the ACC.
- We recommend that ARD assume responsibility for the Middle Street skating facility and formalize its operation.

### **18.2. Athletic Fields**

- Athletic field demand is exceptionally high. Amherst's seventeen (17) fields accommodate 5,565 known scheduled events. Ten (10) of seventeen (17) fields see over 250 uses per year. Virtually no fields experience a spring or fall rest period for regeneration. The average field experiences 327 formal uses per year. There is a deficit of eight (8) to ten (10) athletic fields.
- The number one most frequently cited recreational need we identified in both the needs survey and sensing sessions was additional field space. The inclusion of lights and consideration of synthetic turf was strongly supported.
- There are select athletic fields in the community with over 600 formal scheduled uses per year (e.g. the Amherst Middle School).

As stated previously in Section 7.0, given the closing of Cemetery Fields and the current unresourced athletic field demands, maintenance alone cannot provide the resources to meet the recreational needs. The recommended enhancements to athletic field resources will sustain their uses and provide the recreational facilities currently in demand by the Town of Amherst.

### **18.3. Cemetery Fields**

The Cemetery Field complex is a key element in the Amherst youth sports program. It affords two (2) multipurpose rectangular fields and a baseball field that see 253, 253, and 185 scheduled team uses per year respectively. With its pending closure, the 691 total scheduled events will need to be accommodated by a remaining population of fields already beyond capacity. As noted elsewhere in this report, there are few good alternatives within the Town for additional field space. While we do not have an appreciation for the alternative use of Cemetery Field, nor its justification, we strongly urge the Town to reconsider this decision. In the event that this cannot be achieved, we recommend that the Cemetery Field remain in use until a replacement athletic complex is developed at a previously undeveloped parcel.

#### **18.4. Development of Additional Field Space**

**18.4.1. Joppa Hill Farm.** Although this Town-owned parcel has twenty (20) acres designated for active recreation use, the geology, topography and site access make development of athletic facilities not economically feasible.

**18.4.2. Amherst Middle School.** There is an opportunity to develop a single, rectangular field at the Middle School. This single field does little to meet the identified overall demand for field space, but given its location proximate to the school complex, it is a viable candidate as a supplemental field to mitigate use of the existing Middle School field.

**18.4.3. Baboosic Lake Road Parcel.** This parcel, owned by Amherst Public Schools, offers twenty-two (22) acres and may be suitable for the development of a municipal park. Although questions remain regarding site parameters (ledge, wetlands, and topography), we have prepared a preliminary layout plan that demonstrates it may be possible to develop three (3) or more rectangular fields and related facilities. This could possibly be a replacement for Cemetery Fields, at a cost of about \$2 million.

**18.4.4 Stearns Road Property.** The Stearns Road property provides fifty-seven (57) acres off Stearns Road. The flat topography and open space along with access make this an ideal parcel for active recreation development. A preliminary layout plan is provided, which suggests the site could accommodate at least three (3) rectangular fields, two (2) baseball fields, and related facilities for less than \$2 million. This parcel, if acquired by the Town, would more than mitigate the loss of the Cemetery Fields.

### **18.5. High School Facilities Enhancements**

Based on the separate Souhegan High School Needs Assessment, in addition to other improvements, the study recommends:

- The redevelopment of the track and field facility;
- The installation of a synthetic turf, multipurpose, stadium field;
- The addition of a synthetic field at Simeon Wilson;
- The development of an auxiliary gymnasium and wellness center;
- The turf improvements at the “front fields”;
- The development of a new tennis and outdoor basketball facility.

This represents a \$3 million investment in outdoor recreation facilities resulting in the ability to sustain an additional 600 scheduled team uses with reduced maintenance costs, all weather availability, and improved turf quality.

### **18.6. Teenage Group Services**

The least well serviced demographics in the Town are teenaged children and young adults. If they have outgrown conventional recreational programs and are not involved in school related teams/clubs, there may be current recreational needs. We recommend that the Recreation Department focus on program offerings with this age group in mind and target them accordingly.

### **18.7. Recreation Based Education**

Recreation based educational classes remain a high priority with constituents. It appears that the Recreation Department has responded to this need with a variety of programs (both arts and crafts, cultural, and conventional education). We recommend sustaining such programs, increased use of the P MEC facility and improved information dissemination.

### **18.8. Indoor Recreation Center/Ice Rink/Pool**

The high school needs assessment and the community survey each noted the need for indoor recreation facilities. We recommend that the Town convene a study group to assess the feasibility of a multipurpose recreation center to potentially provide additional gymnasium, fitness, senior center, drop-in center, classroom, ice arena, municipal pool and recreation office space. The goals of this committee are outlined within this report.

### **18.9. Baboosic Lake Waterfront**

Baboosic Lake waterfront area is perceived to be an important but under-utilized recreational facility. The master plan offers a series of improvements that would increase the utility of this Town asset. Again, we recommend a diverse group of interested parties be organized to study water quality and potential waterfront improvements in more detail.

### **18.10. Amherst Trail Network**

The Town has an outstanding multipurpose trail network with 24 miles of trails and access at eleven (11) locations. The needs assessment concluded that trail access was a top priority and that users were somewhat unaware what resources were available. The master plan makes numerous discrete recommendations for facility and communication improvements. We also recommend that the Recreation Department share oversight of the trail network given its relative importance as a recreational asset.

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