

Town of Bethlehem  
Recommendations on Open Space Needs and Opportunities

Prepared by the Town of Bethlehem  
Department of Economic Development and Planning



Behan Planning and Design



In association with Citizens Advisory Committee on Conservation

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JULY 2009

FINAL

Recommendations on Open Space Needs and Opportunities

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## Recommendations on Open Space Needs and Opportunities

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### Purpose

In February 2008, the Town Board tasked the Department of Economic Development and Planning with preparing an assessment of Town open space issues, needs and opportunities as the first phase in a Town open space planning effort. The exercise was undertaken with advisory assistance from the Citizens Advisory Committee on Conservation (CACC), consultant assistance from Behan Planning and Design, and was informed with input from the public obtained through a series of public workshops. The purpose of this Report is to present the findings of the open space assessment and provide recommendations to the Town Board that would establish a framework for open space planning in Town.

### Introduction

The Town's formal open space resources include its system of public and private parks, recreation areas and dedicated conservation lands. More informally, the Town's open space resources also include its undeveloped wetlands, floodplains, water bodies, steep slopes, forests, fields and agricultural lands. Most are held in private ownership and are found throughout the Town. Over the years the Town has lost a good deal of its open space to the development of housing, industry, commerce and other land uses, many of which support and add value to the community. This report does not aim to stop or curtail development activity. Its intent is to ensure that future consumption of land for development is balanced with the protection of land for its open space value. The preservation and/or protection of open space resources is essential if we are to maintain critical natural systems, the character of the community, its quality of life, property values, and recreation opportunities for Town residents.

This Report proposes an integrated approach to open space protection, planned and implemented in a way that makes the most out of limited fiscal resources. The goals and recommendations are intended to steer the Town of Bethlehem in the direction of creating an open space system. Where appropriate, it calls for the integration of open space features with grey infrastructure (roads, utilities, etc.). For example, it encourages the creation of parks

For the purpose of this report **Open Space is defined** as land that is not intensively developed for residential, commercial, industrial or institutional use. It serves many purposes, whether it is publicly or privately owned. It includes agricultural and forest land, community gardens, undeveloped shorelines, undeveloped lands that provide scenic value, public/private parks and recreation fields, walking and bicycling pathways or corridors, and nature/wildlife areas. It also includes water bodies such as rivers and streams. Its occurrence enhances the community character and quality of life for the Town of Bethlehem.

and/or preserves with new development, the incorporation of pathways into future roadway projects, and working with developers, the creation of greenways along the Town's waterways. Some of these approaches may have additional benefits such as flood protection, such as in the case of the latter item.

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The Report also recommends further exploration of more traditional open space conservation strategies, such as purchase of development rights and tax incentive programs.

As a result of evaluating the issues, needs and opportunities surrounding open space, it is clear that in the case of Bethlehem voluntary cooperation from those who control the open space resources will be necessary if the Town is to preserve an open

**Willing Landowner** – a property owner who voluntarily decides to participate in a program related to open space protection or preservation as suggested in this report, and/or one who gives approval for his/her property to be included in the implementation of such a program or to have action taken thereon.

space system of any substance. A central premise of this Report is that implementation of the Town's open space preservation program must occur in the context of voluntary participation by willing landowners. Landowners should understand that this Report is intended to provide voluntary incentives to maintain property in an undeveloped state. It also provides voluntary options that would promote low impact development, if and when development occurs. The bulk of recommendations center on the participation of willing landowners, and recommendations contained herein are not intended to restrict property owner's rights.

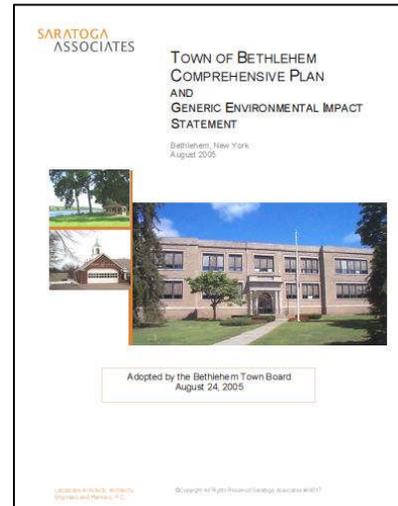
The Report provides a 5+ year guide for preserving or creating the components of the Town's open space system. It includes short-term actions that can be started immediately, as well as long-term and ongoing actions that will need to be integrated into the Town's planning and public works programs. The program will be implemented by multiple parties, including Town staff, the CACC, a new Pathways committee, and private entities such as willing landowners, land conservancies, and non-profit organizations. The result, which may take some time to be fully realized, will be a balanced community where development, agriculture, natural resources, recreation and pathways are all part of a healthy community future.

It is important that the Town recognize that implementation of these recommendations may come with a financial cost to the community. The Town Board will need to explore, evaluate, and consider the costs associated with these recommendations as they are developed and implemented.

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**Open Space Planning Process**

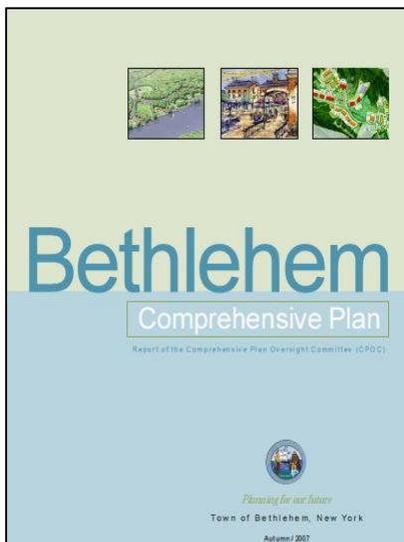
In August 2005, the Town of Bethlehem adopted its first-ever Comprehensive Plan. The adoption culminated an eighteen-month public process and conversation about the future of the community. The Comprehensive Plan is a document that guides the Town’s land use and community development initiatives and investment decisions. One recommendation of the 2005 Comprehensive Plan was for the Town Board to consider the creation of a Farmland and Open Space Protection Program. The program was among several important community topics that emerged throughout the comprehensive planning process but required more focused consideration and consensus-building prior to Town Board implementation.



*The 2005 Comprehensive Plan recommended the Town Board consider the creation of a Farmland and Open Space Protection Program.*

Another recommendation of the Comprehensive Plan was to establish a Citizens Advisory Committee on Conservation (CACC). The CACC was established by the Town Board in 2006 to explore conservation projects, and opportunities with willing landowners. The CACC provides advisory information to the Town Board as requested, but does not have independent regulatory powers. CACCs initial task was to assist in the development of an integrated network of trails and pedestrian facilities in the Slingerlands area (“Slingerlands Pedestrian Network Plan”). A second product of

the Committee was the development of an “Open Space Protection Programs – Funding and Tools Report”, which presents an overview of open space funding methods, programs, and sources applicable to the Town. These two work products helped to establish a foundation for the development of this Report.



*In 2007, the CPOC Report recommended the Town Board initiate the farmland and open space planning process.*

The Comprehensive Plan’s recommendation to create a Farmland and Open Space Protection Program and CACC’s initial work products were subsequently reviewed by the Comprehensive Plan Oversight Committee (CPOC). The CPOC was formed in 2007 to help guide the implementation of the Comprehensive Plan. In 2007 the CPOC recommended the Town Board initiate the farmland and open space planning process. In early 2008, the Town Board authorized the development of a Farmland and Open Space Protection Program. Recognizing the importance for an open space planning process to be unique to Bethlehem, the Board

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commenced the initial phase as an assessment of the Town's issues, needs and opportunities related to open space. This assessment was to be based on community input. The Board noted that the program would be referred to as the open space plan, anticipating that a more appropriate theme and/or title would emerge during the planning process and following input from the community.

The Town identified the Department of Economic Development and Planning (DEDP) to lead the Plan with professional planning assistance from Behan Planning and Design, and American Farmland Trust, Inc. Recognizing the business-nature of agriculture and farming, the Program was separated into two components, a needs assessment for open space and an Agricultural and Farmland Protection Plan. The Citizens Advisory Committee on Conservation (CACCC) was charged with serving as the advisory committee to provide advice and recommendations for the open space component.

In February 2008 the Town was awarded a grant from the New York State Department of Agriculture and Markets for the development of the agriculture and farmland component. The purpose of this component is to work with individuals involved in the Town's agricultural industry to establish strategies that will result in the enhancement, management and continued viability of agriculture and farmland areas and lands in the Town of Bethlehem. The Town Board established an Agricultural and Farmland Study Advisory Committee to assist in the planning process and provide advice and recommendations to the study (See Town of Bethlehem Agricultural and Farmland Protection Plan). The Agricultural and Farmland Protection Plan was conducted in tandem with the development of the open space component and there was opportunity for the interaction of both components during several public meetings.

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### Guiding Principles

The development of guiding principles is a typical practice in most planning initiatives. Guiding principles are established to reflect key values that guide decision making. The DEDP and CACC developed guiding principles for this open space planning process and they are listed below (in no particular order of importance):

**Guiding Principles:** Key values that guide decision making.

- The process of developing an open space plan will be guided by the Comprehensive Plan framework for open space protection. This framework is documented in the CACC open space protection programs report published in October 2006 and is summarized in the comp plan as follows: “work with willing landowners to conserve quality open spaces throughout the Town and create a network of open lands to provide wildlife habitat and potential recreation trail corridors”.
- The open space planning process will be a “bottom up” process that emanates from public input and participation in the process rather than from a “packaged” or preconceived notion of projected outcomes.
- The open space planning process will, to the extent possible, coordinate with and consider the programs, issues and recommendations associated with other Town planning initiatives.
- The open space planning process will define the term “open space” in the context of the Town of Bethlehem’s wants, needs and priorities regarding undeveloped lands and natural resources, as well as associated amenities including, among other things, pedestrian facilities and park lands.
- The process will be led by Town staff with CACC serving as an advisory committee, and will be supplemented as appropriate by outside consultants with local and regional expertise in open space planning and farmland protection.
- In implementing an open space protection planning process, the Town will consider the guiding principles of the Comp Plan especially as they relate to environmental sustainability, fiscal responsibility, and respect of property owner’s rights.
- To the extent possible, the Town will utilize existing mapping resources as appropriate to document land features and uses, and as the basis for new mapping developed in support of the open space planning process.

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### Public Meetings Overview

An important component of the open space planning initiative is to gain the support of residents and landowners of the Town. Establishing a dialogue with the community early in the planning process can result in a good understanding of the community's concerns and needs for open space. With assistance from the CACC and consultants (Behan Planning and American Farmland Trust), three public meetings were organized by Town staff to solicit public input in the process. At the first meeting on May 15, 2008, facilitators asked participants to explore, "what open space means to the community". Comments received throughout this session were used by Town staff and CACC members to develop a working definition of open space. For the purposes of this initiative the definition that emerged is highlighted below.

An analysis of these same comments also yielded various issues of interest to the public, to be discussed in greater depth at subsequent meetings held on October 6, 2008 and October 23, 2008. These issues were categorized into four general topic areas including Recreation and Pathways, Agriculture and Farmland, Natural Systems, and Land Stewardship.

**Open Space** is land that is not intensively developed for residential, commercial, industrial or institutional use. It serves many purposes, whether it is publicly or privately owned. It includes agricultural and forest land, community gardens, undeveloped shorelines, undeveloped lands that provide scenic value, public/private parks and recreation fields, walking and bicycling pathways or corridors, and nature/wildlife areas. It also includes water bodies such as rivers and streams. Its occurrence enhances the community character and quality of life for the Town of Bethlehem.

A more detailed description of each meeting follows and Appendix A, B, and C describe in greater detail, the actual public comments. A regularly scheduled input period at the end of CACC's monthly meetings and the Agricultural and Farmland Study Advisory Committee meetings functioned to provide additional opportunities for public input.

### May 15, 2008 Public Orientation Meeting

The May 15 meeting resulted in the identification of four topic areas regarding open space: Recreation and Pathways, Agriculture and Farmland, Natural Systems, and Land Stewardship.

On May 15, 2008, a public orientation meeting was held to "kick-off" the open space planning process and obtain feedback on "what open space means to the community". Approximately 90 residents attended this meeting. After a short presentation by Town staff, participants worked in small groups of 10-20 people to help define open space, discuss a vision for the community, and identify opportunities and needs for open space in Town. Each working group had the same agenda. Common elements of open space that were identified during the meeting included green space, wildlife/natural habitat, trail corridors,

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farmland, and parks and recreation areas, etc. Based on input from this meeting, the definition of open space was developed.

Meeting participants identified the importance of preserving wildlife habitat and discussed the need to safely connect neighborhoods to recreation areas (park and conservation lands) and schools. Participants expressed concern about the lack of respect for private property and the ability of landowners to both afford and maintain their land. They also expressed concern over the loss of farmland to development and indicated a need to identify options that would help maintain the viability of agriculture and farmland in Bethlehem.



*The May 15 Public Orientation Meeting asked participants "what open space means to the community?"*

*Source: Courtesy of Spotlight Newspapers/Jarrett Carroll*

The feedback received at the May 15 meeting, as well as ongoing guidance from the CACC, informed the planning process. Additionally, the discussions during the May 15 working groups resulted in the identification of issues and needs that could be grouped into four topic areas: Recreation and Pathways, Agriculture and Farmland, Natural Systems, and Land Stewardship. As a result of the input, a follow-up meeting was planned with large-acreage landowners to discuss their concerns and provide an overview of existing options for conservation.

A summary of the responses received from the May 15 public meeting is included in Appendix A.

### **October 6, 2008 Meeting**

On October 6, 2008 a meeting with large-acreage landowners (i.e. owners of 7+ acres) was held. The purpose of this meeting was to solicit concerns and identify opportunities from landowners related to open space conservation, particularly farmland protection, and to address the land stewardship topic identified at the May 15 meeting. This meeting also provided an opportunity to introduce and explain conservation options to landowners.

At the meeting, Behan Planning and Design, and American Farmland Trust, Inc. provided a presentation on conservation tools and land management options. The presentation was based on information received during interviews with the Town's agricultural community/large-acreage landowners. The interviews were conducted in August 2008 by American Farmland

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Trust during the development of the Agriculture and Farmland Protection Plan. The presentation included a discussion on the following topics, respect for private property, affordability of large acreages, and land asset/estate planning. The consultants also presented an overview of potential farmland and open space preservation tools and various solutions that other communities in the Capital Region have adopted to address these issues. Following the presentation, participants separated into small groups and asked questions about the various conservation options.

During the small group discussions, facilitators gauged the participant's interest in the various tools. Some participants expressed interest in a term easement program or an incentive/amenity zoning option. The information received at this meeting was utilized to draft the land stewardship goals outlined in the Goals for Open Space section on page 22.

A summary of the feedback received from the October 6 meeting is included in Appendix B.

### October 23, 2008 Topics Meeting

On October 23, 2008 approximately 60 residents attended a public meeting to further discuss the remaining topics identified from the May 15 meeting: Recreation and Pathways, Agriculture and Farmland, and Natural Systems. At the meeting, Town Planning Department staff provided a presentation on the existing conditions of the open space resources in the Town. Staff discussed the value and benefits of these resources to the Town, and provided maps that illustrated the locations of recreation lands, pathways, agricultural and farmed lands, as well as natural systems (i.e. steep slopes, floodplains, wetlands, streams, etc.).

Following the presentation, participants were randomly separated into three groups and the consultants and Town staff traveled between the groups to discuss community goals associated with each of the topics: Recreation and Pathways, Agriculture and Farmland, and Natural Systems. This exercise afforded all participants the opportunity to provide their input on each of the three topics. The Goals for Open Space section on page 22 discusses the goals that were developed as a result of the comments provided at this meeting.



*At the October 23 meeting, participants discussed goals associated with Recreation and Pathways, Agriculture and Farmland, and Natural Systems topics identified from the May 15 public meeting.*

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A summary of the feedback received from the October 23 public meeting is included in Appendix C.

### **July 1, 2009 Draft Report Presentation Meeting**

On the evening of July 1, 2009, the Department of Economic Development and Planning (DEDP), in association with the Citizens Advisory Committee on Conservation (CACC), hosted a public meeting to present the Draft “Recommendations on Open Space Needs and Opportunities Report” to the community. Approximately 40 attendees (15 of which included CACC members, Town Board members, and Town staff) viewed a presentation by the DEDP, which provided an overview of the Report’s goals, recommendations and open space planning process. Appendix D contains a summary of the comments (verbal and written) that were provided during the question and comment period of the public meeting.

### **Direction from Public Meetings and Existing Open Space Resources Evaluation**

The public meetings provided an opportunity to gauge public sentiment on open space. The DEDP and CACC review and analysis of the comments and information received during the community meetings did not reveal a strong sentiment for development of a traditional open space plan. However, the comments received during the open space meetings did reflect the importance residents placed on preserving natural systems and processes such as drainage systems; the desire for connecting open space areas; exploring the costs of preserving open space; balancing natural resource preservation with development; the need for connecting people to nature and other places; and sustaining the ability for large acreage landowners to afford and manage their land.

### **Existing Open Space Resources in Bethlehem**

In addition to public input, a key to understanding the Town’s open space needs is to identify the open space resources that currently exist in Town. The following sections will briefly discuss the existing elements of the Town’s open space resources.

#### **Recreation and Pathways**

The Town of Bethlehem contains a wide variety of both active and passive outdoor recreation facilities. These facilities are owned and maintained by several entities including the Town, State, school districts, and private and not-for-profit organizations. The facilities accommodate recreational uses through parks and fields (public and private), conservation lands, and educational lands. These lands are shown and classified as to use on the Recreation and Pathways Map.

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Approximately 1,846 acres of recreation, conservation, and education lands are currently located within the Town. This represents about 6% of the Town's total land area of 30,933 acres. Conservation lands represent the greatest area of the classified lands, approximately 788 acres or 37.23% of the recreation lands classified on the map, followed by public recreation, private recreation, and education.

### Recreation Lands

Recreation lands are lands that have been specifically set aside for recreation purposes including Town-owned parks (public) and private sports facilities.



*The Henry Hudson Park provides access to the Hudson River.*

#### *Public Recreation*

The municipal park system consists of eight facilities that offer a wide variety of recreational opportunities for Town residents. Public recreation lands total approximately 426 acres, representing approximately 1.4 percent of the Town's land area. Elm Avenue, at approximately 220 acres, is the largest park in the Town. Henry Hudson Park is the second largest park in the Town and provides access to the Hudson River. Table E-1 in Appendix E provides the acreage and amenities

available at the Town's recreation lands.

The Town owns approximately 59 acres of recreation lands that have not been developed for formal use. They include land on Simmons Road (55 acres) and in South Bethlehem (4 acres). The land along Simmons Road is currently being reviewed for passive recreation development options. In December 2008 the Town held a public meeting to speak to the community about design options for the park land. As a result, the lands will be used for passive recreation, consisting of nature trails and signage describing the wildlife found on the property. In March 2009, the Town Board named the property the Mo He Con Nuck Nature Preserve, to reflect the historical heritage of the area.

Additionally, in the Spring of 2008 the Town entered into a cooperative agreement with NYS DEC to allow public fishing on Town parcels along the Onesquethaw Creek, which includes the Town landfill property and South Bethlehem Town Park.

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### **COLONIAL ACRES GOLF COURSE**

The Colonial Acres golf course, located off of Feura Bush Road in Glenmont, is the result of a unique public – private partnership and provides both recreation and conservation benefits to the Town. In 2007, the Open Space Institute (OSI) purchased the 32-acre golf course to protect it from future development. Currently, OSI leases the course to the Town for \$1 per year, and in turn the Town of Bethlehem manages and maintains the property.

Established in 1964, Colonial Acres has been a certified Audubon Cooperative Sanctuary since 1998. It has been recognized by environmental groups for its water conservation, waste reduction and plant and wildlife management. In 2000, Colonial Acres won the New York State Governor’s Award for Pollution Prevention in the small business category.

In 2002, the course was presented with an Environmental Leaders in Golf Award by Golf Digest magazine for its innovative efforts to reduce the use of water, pesticides and the production of waste. And in 2006, Colonial Acres earned the Environmental Protection Agency’s National Environmental Performance Track Outreach Award.



### *Private Recreation*

Significant private recreation lands also exist in Town. These include the Normanside Country Club, Tri-Village Little League, Bethlehem Soccer Club, YMCA, and several home owners’ association swimming pool facilities. Private recreation lands total approximately 393 acres. Table E-2 in Appendix E lists the private recreation lands along with ownership and area.

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### Conservation Lands

Bethlehem also contains a number of public and semi-public conservation lands. Conservation lands are lands set aside by private, not-for-profit, and State entities for protection from future development not specifically intended for recreation purposes, although passive recreational opportunities may be available. Conservation lands total approximately 789 acres, representing approximately 2.6 percent of the Town's land area. Table E-3 in Appendix E lists the conservation lands along with ownership and area.

The 445-acre Five Rivers Environmental Education Center is partially located in the Town of Bethlehem, off of Game Farm Road (35.3 acres). The Center is owned and operated by NYS Department of Environmental Conservation (DEC) and provides picnic shelters, ten miles of nature trails, cross country skiing, an indoor museum and education programs.



*The Philipin Kill Preserve, owned by the MHLC, is approximately 19.8 acres and contains an attractive mix of upland, floodplain, and wetland.* Source: [www.mohawkhudson.org](http://www.mohawkhudson.org)

Scenic Hudson and the Mohawk Hudson Land Conservancy are the two primary active land trusts in the Town. Lands owned and maintained by land trusts represent approximately 50 percent of all conservation lands. Scenic Hudson owns approximately 260 acres of conservation land known as the Chi and Newton property along the Hudson River in the southeastern area of the Town. The Mohawk Hudson Land Conservancy (MHLC) owns approximately 142 acres, distribute among five preserves (Normanskill, Swift, Phillipin Kill, Schiffendecker Farm, and Onesquethaw Creek). The Open Space Institute owns the 32-acre Colonial Acres Golf Course, however, the organization leases the property to the Town of Bethlehem for management and maintenance.

Another major conservation area in Bethlehem is the Hollyhock Hollow Sanctuary owned by the Audubon Society of New York State. This 140-acre sanctuary offers six hiking trails that traverse woodland, meadow, creek and garden habitats on the property. Hollyhock Hollow is managed to preserve and enhance wildlife habitat, protect natural resources, and offer visitors a chance to explore, relax, and enjoy nature. The trails are maintained in a semi-wild state for the

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general public's use. Unique features include limestone geology, six nature trails, the Onesquethaw Creek, and gardens for hummingbirds, songbirds and butterflies.

Other significant conservation lands include the privately owned, 32-acre Pine Hollow Arboretum, 88-acre Van Rensselaer Forest Wildlife Preserve, and the 33-acre SUNY Cortland Brauer Field Station. The location of the conservation areas is shown on Recreation and Pathways Map.

### **Education Lands**

Supplementing the Town park system is outdoor recreation and open space available at the eight public school sites in Bethlehem. These lands are owned and maintained by public school districts: Bethlehem Central School District and Ravena-Coeymans-Selkirk School District. Together, these sites contain 290 acres of land with facilities that range from playgrounds and youth baseball fields at elementary schools, to tennis courts, running tracks, and regulation baseball and soccer fields at the middle school and high school. Table E-4 in Appendix E lists the education lands along with ownership and area.

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### Pathways

The Town's transportation network affords residents mobility and allows them to access the recreation, conservation, and education lands. Most people consider the Town's transportation network as consisting of the roadways that traverse the Town. However, the roadways are only one component of how people travel about in the Town. The Town's pathways network made up of sidewalks, multi-use paths, bicycle lanes, and striped/widened

A **sidewalk** is an improved pedestrian surface, consisting of concrete or asphalt, five-feet in width, and typically located adjacent to a roadway.

A **multi-use path** typically consists of an eight-foot wide asphalt surface that is physically separated from motor vehicle traffic by an open space or barrier and either within a highway right-of-way or within an independent right-of-way. The surface accommodates two-way travel and users consist of bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers.

A **bicycle lane** is a designated area within a street roadway reserved for bicycle travel and separated from the rest of the roadway by painted lines or other pavement markings.

**Striped/widened shoulders** along roadways are typically four-feet wide and provide an area for bicycle travel. Shoulder width may vary depending on roadway volume and speed.

shoulders that accommodate pedestrians and bicyclists is equally important in that it supports non-motorized modes of travel. In addition, the Town's streets provide substantial connections and recreational opportunities (i.e. recreational cyclists) in areas with low vehicle volumes and slow travel speeds.

The Town's existing pathway network consists of approximately 43 miles of sidewalk, multi-use paths, bicycle lanes, and striped/widened shoulders. Sidewalks are currently provided along residential streets in the older sections of Elsmere and Delmar, and in the vicinity of activity centers along Delaware Avenue, Kenwood Avenue, Fisher Boulevard, New Scotland Road, Elsmere Avenue, and Maple Avenue (in South Bethlehem). Multi-use paths are currently provided along Fisher Boulevard, Wemple Road, and the 1.25-mile loop around the Bethlehem High school along Van Dyke Road, and the Delmar Bypass Ext.. The Delmar Bicycle Route is a 3.5 mile signed route that winds its way along the residential streets of "old" Delmar. In addition to pathways, nature trails are located within conservation lands owned and maintained by the Mohawk Hudson Land Conservancy.

In the Summer of 2008 Albany County announced an agreement with Canadian Pacific Railway for the purchase of a 9-mile railroad right-of-way located in the Towns of Bethlehem and New

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Scotland, Village of Voorheesville and City of Albany with future plans to construct a multi-use path for pedestrian and bicycle use. Approximately 5 miles of the right-of-way are located in the northern area of the Town of Bethlehem, traversing the Hamlets of Slingerlands, Delmar, and Elsmere.

The Recreation and Pathways map illustrates the location of recreation areas and pathways in the Town.

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### Natural Systems

Natural systems in the Town of Bethlehem include floodplains, streams, wetlands, ravines, fields, and forests, as well as many other natural communities. Natural systems provide many benefits to the community by contributing to clean air, clean water and flood protection.

The Natural Systems Map illustrates the location of some of these natural communities and resources in Bethlehem, such as forest cover, wetlands, and surface waters. According to the New York State DEC the Hudson River Estuary, the Normans Kill corridor, and NYSDEC Five Rivers area are all important for their species diversity. Educators at the NYSDEC Five Rivers have indicated that birds travel along the Vroman Kill stream corridor to reach their nesting areas within the State park land. However, it should be noted that we do not, at present, have a comprehensive understanding of the Town's natural communities because such an inventory has not been undertaken.

### Forest Cover

The Natural Systems map shows large areas of forest cover in the lesser developed areas of Town. Forest cover provides important habitat for wildlife and also provides significant benefits to people. The forested areas along stream corridors and adjacent to wetlands are especially important for maintaining water quality, supporting wetland and riparian species, and for flood attenuation.

The map also shows an "urban forest" matrix in the developed areas of Town (i.e. Delmar, Elsmere, Slingerlands). "Urban forest" is a term used to describe the collective of trees in developed areas, including street trees, and trees found in backyards, parks, cemeteries and other places. Collectively, these trees and forests help to maintain climate, air quality, wildlife habitat, and water quality, and can provide energy savings to homeowners.

### Wetlands

There are numerous surface water features (such as rivers and streams) throughout the Town and approximately 3790 acres of mapped wetlands, of which 679 acres are regulated by the New York State DEC. The remaining mapped wetlands are part of the national wetlands inventory and are regulated by the US Army Corps of Engineers

Wetlands are areas where the water table is at or near the surface for extended periods of the year or land that is covered by shallow water. They are transitional areas between aquatic and terrestrial environments, and normally support vegetation that is adapted to saturated soil conditions. Wetlands include cattail marsh, wooded deciduous or coniferous swamp, shrub swamp, wet meadow, cordgrass marsh, and other hydrophytic plant communities.

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Several wetlands in Town are surrounded by forest cover, which helps to slow down run-off and pollutants which can eventually reach the wetland. In general, wetlands serve to moderate stream flows by retaining water during storms and releasing water during periods of low flow. They help to maintain water quality by settling silt and organic matter, and by absorbing pollutants in runoff. They provide valuable habitat for migratory birds, certain fish species, and other wildlife.

Wetlands of 12.4 acres or more are regulated by the State of New York. The State also regulates smaller wetlands when the area is ecologically unique. Development (construction) in a State regulated wetland or within 100-feet of its boundary requires a permit from New York State DEC. Other wetlands, less than 12.4 acres in area, may fall under the jurisdiction of the US Army Corps of Engineers.

New York State DEC wetlands are ranked from Class I (which provide the most benefits) to Class IV (which provide fewer benefits). The classification is based on the work that wetlands do, such as storing flood water and providing wildlife habitat. Approximately, 75% of State regulated wetland area in Bethlehem consists of Class II wetland, which is considered to provide important wetland benefits. Class II wetlands are afforded the second highest level of protection. The majority of the Class II wetlands are located adjacent to the Hudson River. Remaining wetland areas are Class III wetlands.

### Surface Water



*The Normanskill Preserve contains approximately one half-mile of frontage on the Normans Kill.*

*Source: [www.mohawkhudson.org](http://www.mohawkhudson.org)*

There are approximately 106 miles of classified stream in Bethlehem. Major streams include the Normans Kill, Vloman Kill, Coeymans Creek, and Onesquethaw Creek, which all flow into the Hudson River. Surface waters are classified by New York State DEC according to their water quality and “best use”. Classifications range from Class AA waters which are suitable for drinking (after disinfection) to Class D waters which are suitable for fish survival. Most surface waters in Bethlehem are Class D or C.

## Recommendations on Open Space Needs and Opportunities

There are few lakes or ponds within the Town. Frothingham Lake, located in the undeveloped Simmons Road Park, is the Town's largest standing water body and measures approximately 4.5 acres in area. The most prominent water feature is the Hudson River. Town zoning regulations prohibit the issuance of a building permit for the construction or installation of any permitted or accessory use in any district within one-hundred (100) feet of the bank or within the one hundred (100) year flood zone of the following streams, Normans Kill, Vloman Kill, Onesquethaw Creek, Phillipin Kill, and Dowers Kill south of Route 32.

### Floodplains

Floodplains are low lying areas adjacent to streams and rivers which are subject to flooding after a major storm event or significant snow-melt. Floodways of the floodplain convey the force of a flood and act to provide detention of backwaters. The Flood Insurance Study for the Town of Bethlehem, prepared by the Federal Emergency Management Agency (FEMA), identifies the 100-year and 500-year floodplain along the Town's principal streams. A 100-year floodplain is an area which has a one percent chance of being completely flooded in any given year. Floodplain areas exist along the Hudson River, Normans Kill, Vloman Kill, Coeymans Creek, and Onesquethaw Creek. In total, the 100-year floodplain covers approximately 1,792 acres of the Town's land area. It should be noted that floodplains also exist along other streams in Town that have not been studied or mapped by FEMA. With the exception of the Hudson River floodplain, most floodplains in Town are relatively narrow, and are confined in their extent by ravines.



*The floodplain associated with the Vloman Kill provides an area for flooding, especially during the Spring months.*

### Topography

The most notable topographic features of Bethlehem are its ravines, where steep slopes are primarily found. The ravines have been carved in Albany Lake clays by the erosional forces of the Town's major streams and their tributaries including, Normans Kill and Vloman Kill. The northern sections of Delmar, Slingerlands, and Elsmere are dominated by a ravine system

## Recommendations on Open Space Needs and Opportunities

tributary to the Normans Kill. Fingers of this system bisect the area with depths that range up to 100 feet or more. The width of these ravines range up to 1200 feet.

A second major ravine system is found along the Vloman Kill and its tributaries. This system extends in a generally northwest direction from Cedar Hill to Slingerlands. Ravines are most pronounced in the Waldenmaier Road/Meads Lane area. Ravines in this area range up to 50 feet deep. Other notable ravines are found along the Onesquethaw near Spawn Hollow, along the Krum Kill and its tributaries in North Bethlehem, and along minor tributaries to the Hudson in the Corning Hill/Glenmont area. Together, the ravines provide valuable corridors for wildlife and a significant scenic resource for the community.

The Natural Systems map illustrates the location and interaction of the resources and features discussed above.

## Recommendations on Open Space Needs and Opportunities

### Agriculture and Farmland

Land utilized for agriculture and farming is an important component of the Town's open space resources. While the Town recognizes agriculture and farming as a business, farmlands also provide many fiscal, scenic, and environmental benefits to the Town. As a fiscal benefit, agriculture and farmland require fewer community services than suburban development. As a scenic benefit agriculture and farmland provide rural character and scenic landscapes. As an environmental benefit agriculture and farmland can help to maintain and protect water quality and natural resources.

Within the Town of Bethlehem there are over 4,760 acres enrolled in the Albany County Agricultural District #3. This represents approximately 15% of the Town's land area. These lands are somewhat dispersed throughout the Town. Based on the New York State Office of Real Property Service land use classification codes (100-199), approximately 4,400 acres (115 parcels), are listed in the agricultural category. According to the Bethlehem Assessor's Office, in 2007, approximately 4000 acres, representing 127 parcels, received agricultural assessment.



The U.S. Department of Agriculture (USDA) groups soils according to their suitability for field crops. Prime farmland soils is a classification given to soil groups that produce the highest yields with minimal inputs of energy and economic resources. Farming them results in the least damage to the environment. The Town of Bethlehem has approximately 10,000 acres classified as

prime farmland soils mainly spread across the southeastern portion of the Town. The majority of lands being farmed contain prime farmland soils. However, over the past twenty years several acres of prime farmland soils in Bethlehem have been developed for residential subdivisions. Although the USDA lists certain soils as prime farmland there is no guarantee that food crops will grow successfully. This may be reflected in the fact that, in Bethlehem, corn, hay, and pasture land represent the majority of agricultural and farming operations.

One of the main scoring criteria for the funding of the purchase of development rights on agricultural lands through the NYS Department of Agriculture and Markets Program is the occurrence of prime farmland soils.

Based on available 2007 data the Agricultural and Farmland Location map illustrates areas that are involved in farming and agriculture . The map represents a "snapshot" of Bethlehem's 2007 - 2009 farming and agriculture areas only.

Recommendations on Open Space Needs and Opportunities

For a more in depth discussion on the existing conditions of agriculture and farmland, and the agriculture and farming community see the Town of Bethlehem Agricultural and Farmland Protection Plan.

## Recommendations on Open Space Needs and Opportunities

### Goals for Open Space

The following goals are intended to address the issues and needs that were identified through the public meetings, discussions with the CACC, and analysis of the Town's existing open space resources.

**Goal:** A desired state to which planned effort is directed.

Community input received at the October 23, 2008 meeting provided the foundation to establish recommended open space goals for the community. These goals are categorized into four topic areas:

1. Natural Systems
2. Recreation and Pathways
3. Land Stewardship
4. Agriculture and Farmland

The discussion regarding goals for Agriculture and Farmland was forwarded to the Agriculture and Farmland Study Advisory Committee for their review (see Agriculture and Farmland Protection Plan).

### Natural Systems

The goals established for the Town's Natural Systems address the need to preserve the Town's natural resources. Natural Systems provide many benefits including clean air and water, and improve quality of life for Town residents. The goals for Natural Systems are listed below:

- Maintain and improve the quality and quantity of the town's surface and ground waters
- Working with willing landowners, create and preserve linkages (interconnectivity) between natural areas
- Encourage low impact development
- Be good stewards of our natural resources
- Maintain and improve the Town's "urban forest"

#### **Low Impact Development (LID):**

An approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, and minimizing effective impervious area to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product.

### Recreation and Pathways

The goals established for the Town's recreation areas and pathways address the need for a transportation network that accommodates all users, most importantly pedestrians and bicyclists. The importance of providing pathways that connect to existing recreation areas,

## Recommendations on Open Space Needs and Opportunities

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schools and other destinations was an issue articulated during the public meetings. The goals for Recreation and Pathways are listed below:

- Create an interconnected transportation network that is safe for non-vehicular travel to recreation areas, schools, services, and daily activities
- Increase public understanding regarding the “share the road” concept for bicyclists, pedestrians, and motorists
- Encourage the construction of pathways that are context sensitive to their surroundings and compatible with adjacent lands
- Increase opportunities for residents to access the passive and active recreational opportunities offered by the Town’s natural resources (e.g.Hudson River and Normans Kill)
- Support the development of new pocket parks, neighborhood scale parks and community gardens where they are needed
- Maintain existing Town park facilities
- Monitor future growth for its impact on park needs

### Land Stewardship

Participants at public meetings identified the ability to afford and maintain large acreages of privately owned land (agricultural land or undeveloped land) as an important issue surrounding open space. Landowners are affected by trespassing and encroachment issues that make it increasingly difficult and frustrating to steward the land. Continued ownership and land stewardship by private landowners is a vital component of a successful open space program.

The goals for Land Stewardship are listed below:

- Educate and inform Town residents about respect for private property
- Increase prosecution of illegal activities such as dumping of trash/ debris, trespassing, ATV use, and encroachment on private lands
- To the extent possible, consider, avoid, and mitigate impacts to landowners when undertaking new infrastructure and development projects; consider retrofit of problem areas, where feasible and appropriate
- Provide information and incentives to landowners to sustain ownership of undeveloped/open land within the Town
- Provide information to landowners on options available for land management
- Promote educational activities geared towards respect of natural systems by all residents

### Agriculture and Farmland

For goals related to agriculture and farmland see the Agriculture and Farmland Protection Plan.

## Recommendations on Open Space Needs and Opportunities

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The recommendations in the following section aim to direct the Town's future efforts toward achieving the goals listed above.

### Needs, Opportunities, and Recommendations

Preserving open space is not only about preserving important wildlife habitat; it is about ensuring that we have clean air and clean water. It is also about protecting our investments - roads, homes, and other grey infrastructure - from flooding, erosion, runoff and the many other impacts of development.

Preservation of open space is an investment that adds value to the Town and enhances the quality of life. Some of the most economically successful communities and regions in the nation have created plans and developed projects to take advantage of their open space assets to enhance their quality of life and to remain attractive to new residents and new employers.

When the Town's open space resources are considered and balanced with grey infrastructure projects, it adds value to the Town's mixture of land uses and provides a broader community approach to sustainability.

As stated in previous sections of this report, the goal of this phase of the open space planning effort was to identify needs and opportunities and determine future actions to conserve open space in the Town of Bethlehem. Outreach to the general public, as well as large-acreage landowners (i.e. owners of 7+ acres) was conducted to help inform this process. These recommendations are a result of public input, guidance from the Citizens Advisory Committee on Conservation, as well as professional judgment of the Town planning staff and consultants.

Through the open space planning efforts to date a number of central themes have emerged. The Town's streams, forests, wetlands, and other natural communities, as well as recreation, conservation, and agricultural lands are seen as providing the potential components of an open space system. The proposed approach to open space preservation in the Town of Bethlehem would take into account four major actions:

1. **Open Space in Development:** Encourage development that incorporates open space resources in its design, particularly through the provision of incentives.
2. **Connections to Nature and Other Places:** Provide connections to parks, schools, natural areas that are open to the public and other destinations through a system of greenways and pathways.
3. **Land Conservation:** Work with willing landowners to conserve lands with important resources, retain economic value of rural lands, and increase public awareness and respect for private property and the challenges facing large landholders.

## Recommendations on Open Space Needs and Opportunities

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4. **Open Space Financing:** Strengthen and balance “grey infrastructure” projects with open space amenities and find creative ways to finance them.

These actions are described in further detail on the following pages.

## Open Space in Development

### Needs and opportunities:

As the Town of Bethlehem continues to grow and evolve, new development projects will continue to be undertaken, and existing development sites may also be renovated or redeveloped. As such, there is an opportunity to preserve open space resources such as wetlands, streams, and steep slopes during the development process. Cumulatively, the preservation of these various resources across several development sites can provide the benefit of preservation on a larger Town-wide scale. For example, as multiple adjacent sites preserve open space resources within the context of current regulations, a larger Town wide goal of open space preservation can be achieved. This could ultimately provide an interconnected network of open spaces (such as forested areas, floodplains and wetlands) that improve water quality while providing recreational opportunities, wildlife habitat and connectivity, and air and water quality benefits.

Considering the open space resources of development projects can yield benefits for developers, the future users of the development, as well as the broader Bethlehem community. It can also be a very cost-effective way to preserve open space and develop community amenities, such as enhancing wetlands or establishing connections between natural areas.

To an extent many of the site specific resources mentioned above already receive some degree of protection through federal, state, and local land development regulations. And, although the Town of Bethlehem already has many open space tools in place, such as stream buffer requirements and conservation subdivision regulations, updates to the Town code, particularly in the area of providing incentives for open space protection at the site review scale, can help advance the preservation of open space resources in development projects on a greater Town-wide scale.

### Recommendations:

#### ⇒ Recommendation 1: Develop amenity zoning for open space

Develop zoning provisions that could encourage developers (or landowners) to provide open space amenities (community/public benefits) such as pathways or preservation of open space resources in exchange for zoning incentives (such as a density increase). Amenity zoning is similar to incentive zoning, and is permitted through Town Law §261-b. It also permits the Town to accept cash in lieu of providing specific amenities on the

## Recommendations on Open Space Needs and Opportunities

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development site, of which such cash shall be deposited in a dedicated fund and used exclusively for specific community benefits authorized by the Town Board.

Next Steps for Amenity Zoning:

- Identify/confirm permitted areas for density bonus (most likely Hamlet Zoning Districts)
- Identify desired amenities (community benefits such as open space conservation)
- Draft local law
- Run example scenarios to test the draft local law
- Finalize local law; review and adopt the law

Conservation areas and pathway projects should be developed with the participation and support of willing landowners. To the extent that the program contains mechanisms for funding, such funds collected through the amenity zoning/incentive zoning process should be placed in a dedicated fund to be used solely for the purchase or development of desired open space amenities. A pilot project in which this type of amenity zoning might be used in development of the New Scotland Road Hamlet.

Transfer of Development Rights (TDR) may also be explored as another way of achieving a similar result in the Town. However, the feasibility and costs of such a program should be carefully evaluated - both in terms of market demand as well as the costs for the Town to develop and administer such a program. Additionally, TDRs require the identification of sending and receiving areas within the Town, which may be a source of concern to some residents. For example, there was a mixed response amongst CACC members regarding the identification of property within the Town as a sending or receiving area.

### ⇒ **Recommendation 2: Update Town code and conservation subdivision regulations**

Update the Town code to encourage “Better Site Design” and low impact development. The Better Site Design guidebook developed by the Center for Watershed Protection provides a framework for this process. The goals of better site design are to reduce impervious cover; take advantage of conservation opportunities; create more functional open space; and develop more effective stormwater management.

Funding for better site design updates may be available through the Hudson River Estuary Program Grants: <http://www.dec.ny.gov/lands/4920.html>.

The Town’s conservation subdivision regulations should also be updated to be more desirable/usable for developers. The conservation subdivision option is not being widely

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Recommendations on Open Space Needs and Opportunities

utilized and further investigation of the reasons for this is necessary. The Town should bring the development community (builders, realtors, etc.) into the discussion.

In addition, the Department of Economic Development and Planning should consider formalizing a process for working with area land trusts in instances where the conservation of site specific resources requires participation of a third party. For projects where a land trust may be asked to hold an easement, the land trust should be brought to the table early in the process to ensure that the conservation area meets their criteria and goals as well as those of the community.

## Connections to nature and other places

### Needs and opportunities:

During this planning process, many Town residents expressed satisfaction with the individual components of the Town's park system (such as Elm Avenue Park and Henry Hudson Park), yet there was a concerted call for more access and pathway connections to public parks and open space areas, as well as opportunities for youths to connect to nature and other desirable destinations in a safe manner.

Pathways are non-motorized rights of way such as sidewalks, multi-use paths, equestrian trails, bicycle lanes, and striped shoulders that accommodate pedestrians and bicyclists. Pathways should be context sensitive to their surroundings and compatible with adjacent lands.

Primarily, there is a need for pathways to connect neighborhoods to existing parks and schools. There is also a need for an interconnected pathway system that provides transportation alternatives to the automobile, allowing youths to travel to school, parks and friends' homes; allowing workers to commute to their jobs; and allowing people of all ages to access shopping areas and other primary destinations.

There was also a desire raised by some residents for additional pocket parks and community gardens for local use within neighborhoods. There was also mention of a need for access to natural areas (possibly through greenways) for passive recreation, such as along the Normans Kill and Hudson River, where this is feasible with respect to land ownership and environmental constraints.

**Greenway:** A corridor of private and/or public undeveloped land, as along a waterway (i.e. named stream), that could be reserved for recreational use and/or environmental preservation.

### Recommendation:

#### ⇒ **Recommendation 3: Establish a pathways committee**

A Pathways Committee would be tasked with investigating and making recommendations regarding non-motorized pathways in the Town. The Committee would identify and prioritize pathways and linkages throughout the Town, concentrating on publicly owned right-of-ways. They would provide this information to the Planning Board for their use in development review and to the Town Board for their use in prioritizing funding resources. It will be important for the Committee to consider, in consultation with Town Departments (Public Works, Police, Highway, and Planning), the safety, maintenance, and security issues associated with the pathways that are recommended. The Mohawk Hudson Land Conservancy has already conducted

## Recommendations on Open Space Needs and Opportunities

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extensive work on pathways in the region and should be included on the Pathways Committee.

The Pathways Committee should familiarize itself with prior work on pedestrian and bicycle transportation conducted over the years by other Town committees and studies, including the Land Use Management Advisory Committee (LUMAC), Bethlehem Citizens for Pedestrian Safety Committee, the CACC, and the 1998 Sidewalk/Bikeway Feasibility Study.

Additionally, the CACC identified the potential for a committee to address issues relative to motorized vehicles such as ATVs and snowmobiles. The Town Board may wish to consider the establishment of a group to consider this further.

- ⇒ **Recommendation 4: Consider developing a community gardens program**  
Cooperate with schools, other community/educational venues, and willing landowners who desire to initiate and participate in this community activity.

## Land Conservation

### Needs and opportunities:

Although the Town possesses many exceptional natural resources - most notably the Hudson River, Normans Kill, and Onesquethaw Creek/watershed - there is very little information available about the Town's ecological resources. Three sources of ecological information exist currently: NYS Natural Heritage Program, the Normans Kill Riparian Corridor Study, and the natural community mapping within the Onesquethaw-Coeymans watershed in the southwest area of Town.

Without more comprehensive ecological information, there is no clear indication of which resources are highest priority within the Town. Therefore, one opportunity for Bethlehem is to further assess ecological resources to help prioritize conservation actions. Areas in need of further study can be identified based on ecological indicators (such as places where a diversity of rare species are known to exist; areas where streams converge; or outlets to the Hudson River). These areas could be assessed utilizing existing geographic information systems data.

The Town should work towards expanding existing parks and preserves and connecting them together with wildlife corridors of vegetated streams, wetlands and uplands. Where appropriate these corridors might also be considered for recreational use. Much of this work can be done by setting aside networks of open space through development-side planning efforts. However, there are also areas with special ecological resources (such as rare plants or amphibians) which could be preserved by working with willing landowners as well as area land trusts.

Since most of the land in the Town of Bethlehem is in private ownership it is in the community's best interest to support landowners in their efforts to keep land open and undeveloped, if they choose to do so.

Ensuring that landowners, especially those who own larger acreages, can continue to own their land requires that it is both affordable and manageable. With respect to affordability, most landowners have expressed concerns related to increasing taxes (especially school taxes), which can force them to sell the land. This problem can be addressed through tax incentives and programs aimed to reduce the tax burden for large-acreage landowners who own land that provides environmental or agricultural benefits.

Private property owners also have concerns about the lack of respect for property and the need for increased enforcement of violations of the law - such as trespassing and illegal dumping. Although this is not a "traditional" open space plan element, the Town recognizes that these

## Recommendations on Open Space Needs and Opportunities

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problems reflect upon a landowners' desire and ability to properly steward and manage their land. These concerns can be addressed through both education and enforcement of the law.

Tax and estate benefits of conservation easements can also be promoted, and where feasible the Town might work with willing landowners and land trusts to preserve significant properties through purchase of development rights (PDR). This approach would be based on the presence of a willing landowner; available grant funding or other project financing; the presence of a party to conduct long-term stewardship and maintenance (such as a land trust); and a measurable community benefit.

### Recommendations:

#### ⇒ **Recommendation 5: Sponsor/support a landowner forum**

Sponsor a landowner forum to promote existing conservation and stewardship options for landowners. This might be best implemented as a regional forum with experts from state agencies, agricultural fields, financial advisors, land trusts, and other conservation organizations. An example is the *Preserving Your Land* conference that is sponsored by the Ulster County land trusts. The conference provides extensive information to landowners on options available to them, including sessions with appraisers and financial consultants. The Mohawk Hudson Land Conservancy has also conducted forums such as this and should be involved in the planning process for such a forum.

#### ⇒ **Recommendation 6: Explore the development of an open space education series**

The Town values the role that open space provides to the environment and overall quality of life for its residents. The development of a series of materials and informational sessions would educate residents on the benefits that open space provides to the community.

#### ⇒ **Recommendation 7: Strengthen Town code**

Review existing Town code to develop recommendations on how the code might be strengthened to address issues of trespassing, dumping and other illegal activities (including enforcement). Work with the Town attorney, Town departments (highway, police, etc.) and landowners to achieve this objective.

#### **Recommendation 7A: Consult Town Police Department in ways to address violations on private property**

A landowner's ability to easily manage the land increases the likelihood that the land would remain open and undeveloped. The establishment of a dialogue between the Town Police Department and landowners could result in ways to better address violations on private property (such as dumping and trespassing) and assist the landowner in his/her ability to keep the land open.

**Recommendation 7B: Explore ways to provide assistance with property encroachment matters**

Advancing technologies in Geographic Information Systems (GIS) may offer the ability for the Town to provide property information when requested by a property owner. This information may include aerial photography and GIS tax parcel mapping. It is important to note that this information would be provided to the requestor with certain qualifications regarding its accuracy. The Town's GIS database was not prepared with the intention or level of detail necessary to establish the exact location of property lines.

Additionally, the Town maintains several property plot and subdivision plans archived at Town Hall. When requested these plans can be provided for information purposes through the Freedom of Information Law process. To assist with property encroachment matters related to future development, the Town may wish require that survey markers (iron rods) be placed at the property corners of new lots when future subdivisions are developed.

**Recommendation 7C: Prepare informational brochures and articles regarding trespassing and encroachment**

Informing the community on the issues that landowners face to keep their land undeveloped, and adverse impacts such as trespassing, encroachment, and illegal dumping on the land, could help to reduce these activities. Brochures could be prepared and provided at Town Hall, libraries, and other community locations or provided in Town utility or tax bills. The Bethlehem Report and monthly e-Newsletter could run articles discussing these issues. The information should be connected with the target audience.

**⇒ Recommendation 8: Research and Explore the development of a term conservation easement program**

A term conservation easement program would provide property tax relief to landowners who agree to conserve open space resources on their land for a given term of years. The easement may be set up on a sliding scale where the tax benefit increases the longer the term of the easement.

Next steps:

- Develop criteria for term easements (types of resources to preserve, terms of easement, etc.)
- Identify eligible parcels and develop a methodology to document the resources associated with the eligible parcels.

## Recommendations on Open Space Needs and Opportunities

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- Evaluate fiscal impacts and make a recommendation on the extent of the program
- Draft and adopt a term conservation easement law for Bethlehem if fiscal analysis is supportive.

Note that there has been sensitivity expressed regarding the potential to field verify the types of resources to preserve on an eligible parcel. An approach that addresses landowners concerns and the programs purpose should be developed between the Town and community.

Both the Town of Clifton Park in Saratoga County and the Town of Perinton (the most extensive in the state) in Monroe County have term easement programs in place and could be looked at as examples when developing a program that meets Bethlehem's needs.

### ⇒ **Recommendation 9: Explore the Development of a Purchase of Development Rights (PDR) program.**

Many communities in New York State have developed local Purchase of Development Rights (PDR) programs. Under PDR, the development rights of a property are purchased but the property can continue to be farmed or used for purposes other than development. PDR can be applied to agricultural properties as well as lands with scenic, natural, or other open space values.

The development of a Town PDR program is dependent on the establishment of a dedicated fund for the program. This can be created through municipal bonding, a dedicated reserve account, or other mechanisms such as a real estate transfer fee. One of the first steps in the development of such a program is to determine how such a program would be funded. Surveying Town residents is the first step in this process. PDR programs require a certain level of administration and staff support.

In the short-term, the Town should consider identifying potential purchase of development right projects, and prioritizing those which provide multiple benefits and potential funding opportunities. Such opportunities may be available in the areas of farmland protection and watershed protection. The Town does not need to have a PDR program in place to submit projects for state grant funding.

### ⇒ **Recommendation 10: Enhanced tree planting along public rights of way**

The trees within our existing neighborhoods and parks provide both environmental and aesthetic benefits to residents and contribute to the perception of open space in the community. One of the needs identified in this planning effort was for planting (or replanting) of trees along existing public rights of way in the urbanized areas of Town. Cost-share grants are available for communities through the NYSDEC to inventory, plan for, and plant trees in this type of setting. Planning ahead for tree planting is also

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## Recommendations on Open Space Needs and Opportunities

important in neighborhoods with aging trees, which can become a hazard. Tree planting programs should be evaluated with consideration of the future costs of maintenance and upkeep. Town Departments such as Public Works and Highway, along with municipal utilities, should be consulted for this initiative.

The following website provides more information on urban forest grants available through the NYSDEC: <http://www.dec.ny.gov/lands/4957.html>.

⇒ **Recommendation 11: Prioritize study areas and document ecological resources**

Work with ecological professionals to determine additional areas worthy of more comprehensive ecological study in the Town. Areas believed to be worthy of study include the freshwater wetland complex and surrounding uplands in the southeast area of Town along the Hudson River and Henry Hudson Park (rare plants). Funding may be available through the Hudson River Estuary Program for further assessment. Advances in geographic information system data provide an opportunity to conduct a cursory review of ecological resources in the Town. Currently, satellite imagery is available to assist in the documentation of ecological resources. Access to private property to field verify ecological information should only be conducted with the permission from property owners.

⇒ **Recommendation 12: Develop land feature criteria to rate preservation opportunities**

Develop land feature criteria that can be used to objectively assess (or rate) parcels on their desirability for open space preservation. The intent of the criteria is to inform the Town's decision making if and when land preservation opportunities arise. For example, if a landowner desired to sell or convey his/her property to the Town, the criteria could be used as a screen to determine whether the Town was potentially interested in acquiring the parcel for open space purposes. These criteria could also be used by the Planning Board during the development review process, in the event an applicant proposes to deed a specific area of the development site to the Town. The Planning Board could consult the criteria to make a recommendation for acceptance or denial of the proposed deeded area. It is important to note that the intent of the land feature criteria is not to rate properties for regulatory purposes or to impose future preservation restrictions.

The Town's Open Space Protection Programs – Funding and Tools Report provides examples of preservation criteria used by conservancy organizations and would serve as a helpful resource in development of the criteria. It is important to note that the CACC recognizes the criteria should be specific to the Town of Bethlehem.

## Financing Open space

### Needs and opportunities:

The financing of open space preservation is often a critical challenge for local open space programs. When faced with rising land values, property and school taxes and escalating needs for infrastructure and community services, open space investment is often placed at the end of the list.

But, when open space preservation is considered as a broader community goal of fiscal and environmental health, as well as an environmental education amenity, the small investment in open space (often several orders of magnitude less than grey infrastructure projects) seems worthwhile.

Cost of service studies conducted throughout New York state have overwhelmingly concluded that undeveloped lands such as farms and forests cost a community less to service than residential development. It is part of a healthy, fiscally-balanced community.

The Town of Bethlehem should have a stable source of funds available to conduct open space projects. This is the best way to leverage public and private grant sources to achieve the highest level of results. The CACCs “Open Space Protection Programs – Funding and Tools Report” is a valuable reference since it presents an overview of open space funding methods, programs, and sources applicable to the Town.

Towards this end, the Town should consider all possible options to create a diversified financing system for conservation and determine the appropriate mechanisms for financing. Some possible approaches might include, open space bonding, as well as through a tax-sharing system.

### Recommendations:

#### ⇒ Recommendation 13: Survey residents

Consider asking Town residents a series of questions to determine what resources are important to them and if they would be willing to pay for investment in open space preservation. Even a small amount of funding could provide a substantial source of dedicated funds that can be leveraged much further to achieve open space goals. For example, a small percentage of a future “grey infrastructure” (i.e. roadway or utility construction) bond could be reserved to implement open space goals.

#### ⇒ Recommendation 14: Consider Open Space benefits of tax sharing

As part of the Bethlehem 20/20 Committee’s effort, the Committee has discussed the concept of a negotiated revenue sharing agreement among the various taxing

## Recommendations on Open Space Needs and Opportunities

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jurisdictions (School, County, and Town) associated with new large scale developments in order to fund public benefit projects. Typically, the majority of public benefit projects are related to the Town's grey infrastructure (such as sewer, water, and roads); however, open space amenities can also be included. Amenities may include parks and pathways that benefit a broad spectrum of the community and the taxing jurisdictions. Benefits of open space investments include health and fitness and educational opportunities, and enhancements to property values from the presence of these open space assets.

### ⇒ **Recommendation 15: Consider green with grey**

As the Town considers grey infrastructure improvements and investments, it may also make fiscal sense to incorporate open space elements (green infrastructure) within these projects to achieve multiple goals. One example is a combined floodway, stormwater management, and park system. Another example would be to implement a comprehensive tree planting program or pathway system along public rights of way when a road is constructed or reconstructed.

#### ⇒ **Recommendation 15A: Leverage Town investment**

Leverage Town investment in open space resources by developing winning grant projects for state and federal grant funding through the NYS Farmland Protection Program, Land and Water Conservation Fund, Hudson River Estuary Program, and others. This involves advanced planning to create ready-to-go projects, working with willing landowners and other partners.

#### ⇒ **Recommendation 15B: Work with land trusts**

Consider leveraging funds by working with area land trusts to develop conservation easements. The Town may want to consider financing transaction costs (such as baseline documentation, stewardship and legal defense funds) for conservation easements developed by land trusts as this is a cost-effective way to achieve land conservation while keeping land on the tax rolls. If this is considered, the Town should develop criteria (consistent with the land feature criteria, see Recommendation 12) for doing so to ensure that the projects meet community goals.

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Recommendations on Open Space Needs and Opportunities

**Recommendation Priorities and Implementation**

This section prioritizes the recommendations for short, medium, and long term implementation, as well as ongoing activities, and identifies the responsible parties (i.e. DEDP, CACC, or other Town committees or departments). Short term recommendations are those that could be implemented immediately, within 0 – 1 year. Medium term recommendations are those that could be implemented following the completion of short term items. The products of short term items could be utilized for the development of the medium term recommendations. Long term recommendations are those that could be implemented in 3+ years. Ongoing recommendations are actions that are to be incorporated into the ongoing activities of Town departments (i.e. Planning, Engineering, Highway, etc.). The Town desires to fund these recommendations with grant opportunities from Federal and State agencies when available. The prioritization of these recommendations may change as grant opportunities arise, and/or based on the availability of Town staff support.

See the Recommendation Prioritization Table on the following page, which lists the short, medium, long-term, and ongoing recommendations.

**RECOMMENDATIONS PRIORITIZATION TABLE**

RECOMMENDATION	IMPLEMENTATION*	RESPONSIBILITY
<b>OPEN SPACE IN DEVELOPMENT</b>		
Recommendation 1: Amenity zoning for open space	<u>MEDIUM TERM</u>	<u>TOWN</u>
Recommendation 2: Update town code and conservation subdivision regulations	<u>MEDIUM TERM</u>	<u>TOWN</u>
<b>CONNECTIONS TO NATURE AND OTHER PLACES</b>		
Recommendation 3: Pathways Committee	<u>SHORT TERM</u>	<u>NEW COMMITTEE</u>
Recommendation 4: Consider developing a community gardens program	<u>LONG TERM</u>	<u>TOWN</u>
<b>LAND CONSERVATION</b>		
Recommendation 5: Landowner Forum	<u>LONG TERM</u>	<u>CACC SUBCOMMITTEE</u>
Recommendation 6: Open Space education series	<u>LONG TERM</u>	<u>CACC SUBCOMMITTEE</u>
Recommendation 7: Strengthen Town code to address trespassing, etc. Recommendation 7A: Address violations on private property Recommendation 7B: Assistance with property encroachment matters Recommendation 7C: Informational brochures	<u>SHORT TERM</u>	<u>CACC SUBCOMMITTEE</u>
Recommendation 8: Term conservation easement program	<u>MEDIUM TERM</u>	<u>TOWN</u>
Recommendation 9: Explore the development of a Purchase of Development Rights (PDR) program	<u>MEDIUM TERM</u>	<u>TOWN</u>
Recommendation 10: Enhanced tree planting in public rights of way	<u>LONG TERM</u>	<u>TOWN</u>
Recommendation 11: Prioritize study areas/document ecological resources	<u>MEDIUM TERM</u>	<u>CACC SUBCOMMITTEE</u>
Recommendation 12: Land feature rating criteria	<u>SHORT TERM</u>	<u>CACC</u>
<b>OPEN SPACE FINANCING</b>		
Recommendation 13: Survey residents	<u>SHORT TERM</u>	<u>CACC</u>
Recommendation 14: Open Space benefits of tax sharing	<u>SHORT TERM</u>	<u>TOWN/BETHLEHEM 20/20</u>
Recommendation 15: Consider Green with Grey Recommendation 15A: Leverage Town investment Recommendation 15B: Work with Land Trusts	<u>ONGOING</u>	<u>TOWN</u>

**\*IMPLEMENTATION LEGEND**

SHORT TERM: 0-1 YEARS	RECOMMENDATIONS THAT CAN BE IMPLEMENTED IMMEDIATELY.
MEDIUM TERM: 1 – 3 YEARS	RECOMMENDATIONS THAT CAN BE IMPLEMENTED FOLLOWING THE COMPLETION OF SHORT TERM ITEMS. SHORT TERM ITEMS WILL BE UTILIZED FOR THE DEVELOPMENT OF THESE RECOMMENDATIONS.
LONG TERM: 3+ YEARS	RECOMMENDATIONS THAT ARE TO BE IMPLEMENTED OVER THE LONG TERM.
ONGOING	RECOMMENDATIONS THAT ARE ONGOING ACTIVITIES, TO BE INCORPORATED INTO THE ACTIVITIES OF TOWN DEPARTMENTS (i.e. PLANNING, ENGINEERING, HIGHWAY, ETC.).

*NOTE: The Town desires to fund these recommendations with grant opportunities from Federal and State agencies when available. The prioritization of these recommendations may change as grant opportunities arise and/or based on the availability of Town staff support.*

## Recommendations on Open Space Needs and Opportunities

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### **Conclusion**

Through the evaluation of residents' input at public meetings and conversations with the Citizens Advisory Committee on Conservation, it appears that community interest lay in developing creative ways to preserve and finance open space. During these difficult economic times, this report has established an action plan for the Town of Bethlehem that centers on recommendations that are both fiscally responsible and achievable. By continuing to work together as a community to address these needs and opportunities, the fruit of that labor will benefit not only current Bethlehem residents, but future generations as well.

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## Recommendations on Open Space Needs and Opportunities

### GLOSSARY

**Amenity/Incentive Zoning** – A zoning provision that encourages developers (or landowners) to provide open space amenities (community/public benefits) such as pathways or preservation of open space resources in exchange for zoning incentives (such as a density increase) within specific zoning districts. Amenity zoning is similar to incentive zoning, and is permitted through Town Law §261-b. It also permits the Town to accept cash in lieu of providing specific amenities on the development site, of which such cash shall be deposited in a dedicated fund and used exclusively for specific

**Bicycle lane** – a designated area within a street roadway reserved for bicycle travel and separated from the rest of the roadway by painted lines or other pavement markings.

**Goal** – a desired state to which planned effort is directed.

**Greenway** – A corridor of private and/or public undeveloped land, as along a waterway (i.e. named stream), that could be reserved for recreational use and/or environmental preservation.

**Guiding Principle** – a key value that guides decision making.

**Low Impact Development** – An approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product.

**Multi-use path** – typically consists of an eight-foot wide asphalt surface that is physically separated from motor vehicle traffic by an open space or barrier and either within a highway right-of-way or within an independent right-of-way. The surface accommodates two-way travel and users consist of bicyclists, pedestrians, joggers, skaters, and other non-motorized travelers.

**Open Space** – is land that is not intensively developed for residential, commercial, industrial or institutional use. It serves many purposes, whether it is publicly or privately owned. It includes agricultural and forest land, community gardens, undeveloped shorelines, undeveloped lands that provide scenic value, public/private parks and recreation fields, walking and bicycling pathways or corridors, and nature/wildlife areas. It also includes water bodies such as rivers and streams. Its occurrence enhances the community character and quality of life for the Town of Bethlehem.

**Pathway** – represented by sidewalks, multi-use paths, bicycle lanes, and striped/widened shoulders that accommodate pedestrians and bicyclists.

## Recommendations on Open Space Needs and Opportunities

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**Purchase of Development Rights (PDR)** – A municipality can purchase the development rights to a property. The right to develop land is assigned a dollar value and the property owner receives a cash payment for that right. In exchange, to protect open space resources such as productive agricultural land, ground and surface water, wildlife habitat, historic sites, and scenic views, the landowner places a deed restriction, in perpetuity, on their property. This deed restriction is also called a conservation easement.

**Sidewalk** – an improved pedestrian surface, consisting of concrete or asphalt, preferably five-feet in width, and typically located adjacent to a roadway.

**Significant Natural Community** – locations of rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas. The NY Natural Heritage Program calls these different types of habitats or ecosystems “natural ecological communities.” A natural ecological community is defined as an assemblage of interacting plant and animal populations that share a common environment; the particular assemblage of plant and animal species occurs across the landscape in areas with similar environmental conditions. Freshwater wetland, estuarine, and upland natural communities are classified according to their dominant vegetation and their physical setting; aquatic, marine, and cave natural communities are classified according to their physical setting and their dominant flora and fauna.

**Striped shoulders** –along roadways are typically four-feet wide and provide an area for bicycle travel. Shoulder width may vary depending on roadway volume and speed.

**Transfer of Development Rights** –Allow willing landowners to transfer the right to develop one area of land to a different area of land within the same municipality or a neighboring municipality. Generally, TDR programs are established by local zoning ordinances. In the context of farmland protection, TDR is used to shift development from agricultural areas to designated growth zones closer to municipal services. TDR can also be used to protect other types of open space. The area of land where the rights originate is called the “sending” area. When the rights are transferred from a sending area, the land is restricted with a permanent conservation easement. The area of land to which the rights are transferred is called the “receiving” area. Buying these rights generally allows a developer to build within the receiving area at a higher density than ordinarily permitted by the base zoning. Rights are bought and sold on the open market.

**Willing Landowner** – a property owner who voluntarily decides to participate in a program related to open space protection or preservation as suggested in this report, and/or one who gives approval for his/her property to be included in the implementation of such a program or to have action taken thereon.