

Open Space Plan: Charting a course for your town's green assets



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Introduction

Green, undeveloped areas are precious assets for every community, but especially in New Jersey, the most densely developed state in the country. Whether you live in a rural area, a suburban enclave or an urban setting, green spaces add to the charm and quality of life of your community and, thus, they enhance property values. But open spaces also perform many valuable natural functions. For example:

- By slowing down and absorbing rainwater, open lands help prevent flooding and replenish the groundwater supply that provides drinking water.
- Open spaces create habitat for wildlife to support species diversity and feed pollinators like bees, birds and butterflies that enable agriculture to thrive in our Garden State.
- Undeveloped areas, especially forested lands, help to mitigate climate change.
- Spending time in nature is beneficial for people – it enhances both mental and physical health. (<https://e360.yale.edu/features/ecopsychology-how-immersion-in-nature-benefits-your-health>)

Without a doubt, open space plays an important and worthwhile role in the life of a community, and careful planning helps towns make the most of their open space investments.

The Stillwater Environmental Commission used their ANJEC Open Space Stewardship Grant to create educational signage welcoming visitors to Trout Brook.



What is an open space plan?

An open space plan (OSP), also known as an open space and recreation plan (OSRP) is a comprehensive guide for open space protection and preservation in a municipality, a county or some other defined region like a watershed. The plan tells why and how open space will be protected and provides a framework for implementation. Because open space preservation is generally pursued over a long period of time, a comprehensive plan helps assure continuity and policy consistency from one administration to the next.

An open space plan examines a community's needs and goals, analyzes all its open lands (both preserved and unpreserved) within its boundaries, and lays out a set of priorities and strategies for preservation. It can be an important tool for empowering a community to pursue open space preservation in a systematic, cost-effective manner that best meets its social needs and protects natural resources. It is also a "wish list" that articulates the community's vision of its future in terms of open space. It typically contains text, maps, tables, aerial photos and other materials.

Benefits of an open space plan

An open space plan is a big undertaking. Volunteers from an environmental commission or open

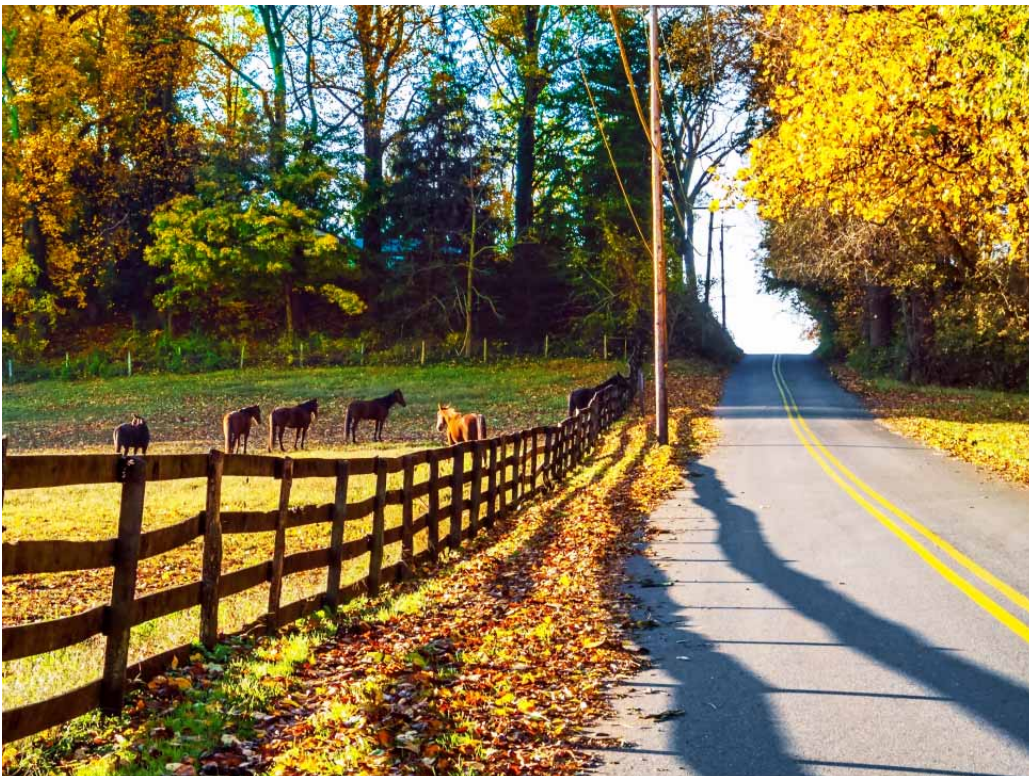
space committee can easily spend a year or more doing the necessary research and writing. Even if volunteers do most of the legwork, there may be consulting and production costs associated with delivering a printed plan. Is it worth it?

Cost effectiveness

Perhaps the biggest payback on the investment of time and money in an open space plan will be the orderly, cost-efficient and ongoing preservation of open space. The effort and expense is miniscule compared to the cost of just one parcel of land in a high-priced State like New Jersey. With a comprehensive open space plan in place, a municipality is less likely to waste money on hasty purchases made in response to a development proposal or political pressures. Instead, the open space plan is more likely to lead to investment in land that offers the most benefits to the community and the environment. Crucial lands (for example, those with special environmental characteristics or in strategic locations that make them particularly desirable to preserve) are less likely to fall through the cracks if they are included in a municipal open space plan. With specific parcels targeted for preservation, the environmental commission and the open space committee can be more prepared with the necessary funding before a specific development proposal threatens the land.

Funding

New Jersey's Green Acres Program was created in 1961 to meet the State's growing recreation and conservation needs. Working with public and private



Preserved farmland enhances the special character NJ's rural areas.

Photo by Andrew F. Kazmierski



Eagles are now present in every NJ county, thanks, in part, to habitat protection.

partners, Green Acres has protected over half a million acres of open space and provided hundreds of outdoor recreational facilities in communities around New Jersey.

Towns and counties with an approved OSRP and an open space tax (or other dedicated funding source) are eligible for larger NJ Green Acres acquisition grants (50 percent of the purchase price instead of 25 percent) under the Planning Incentive Program. Once a town meets the Planning Incentive criteria, it receives funds in the form of a special block grant, similar to a credit line, that can be used for any parcel listed in its approved OSRP. The block grant enables a municipality to react quickly when a market opportunity arises, instead of waiting to see if an individual grant will be approved for a given parcel.

The Department of Agriculture, in its administration of the state's Farmland Preservation Program, offers similar Planning Incentive Grants (called "PIGs") for agricultural open space planning. Hopefully, through comprehensive planning, municipalities will carry out local farmland preservation in a manner that will not only preserve open areas, but also help to sustain agriculture as an industry in New Jersey.

In addition to helping to gain access to grant funding, the very process of collecting and evaluating the information for an open space plan helps focus community attention on the issue.

This can result in greater support for establishing a local open space tax. Contacts with large landowners can lead to donations of land or easements to the town or a land trust. And involving interested citizens in the process can turn up creative ideas for identifying, preserving and maintaining open space.

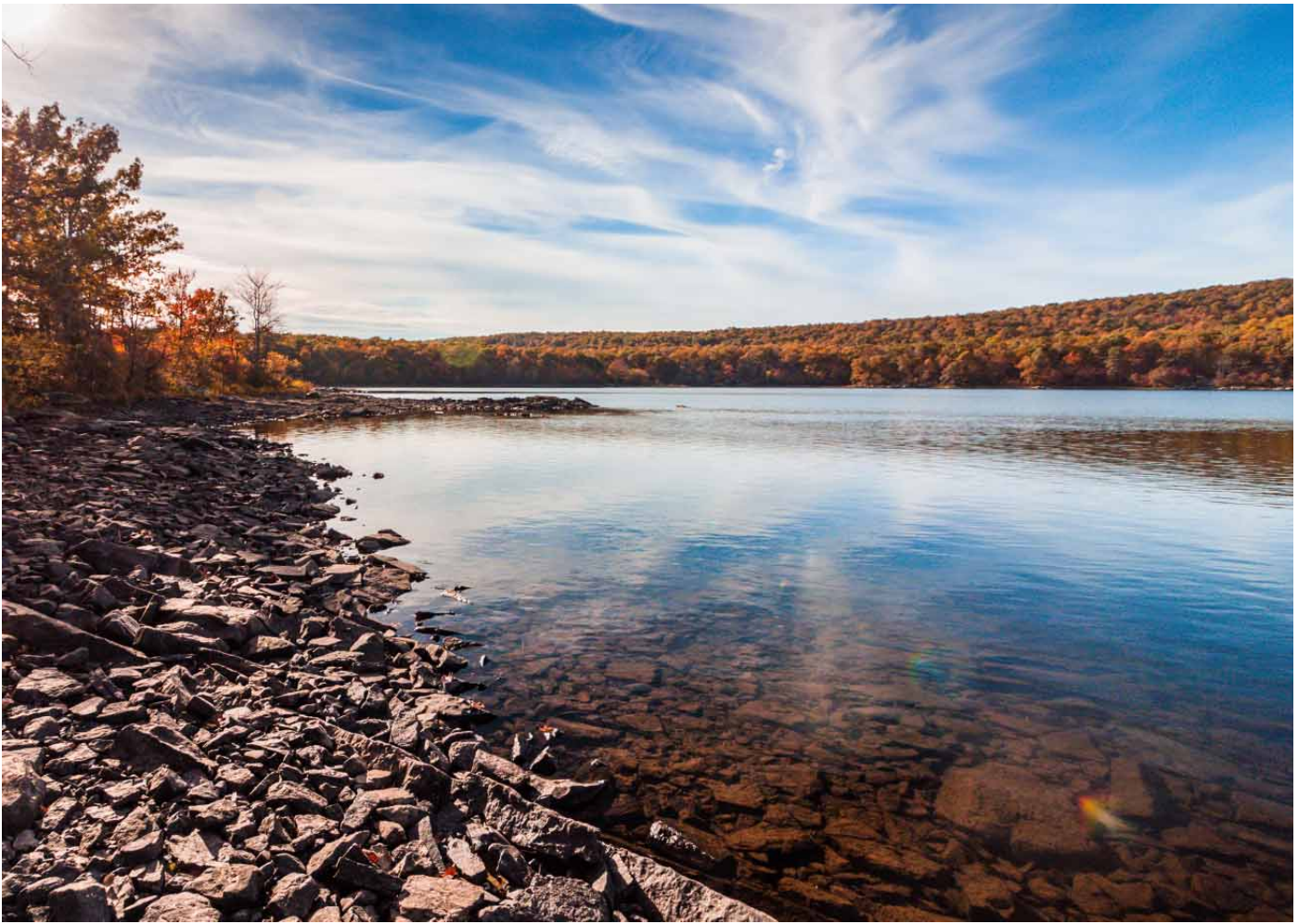
Protection

Another benefit of having an OSP is identifying which open lands in the municipality are permanently preserved and which are targeted for future protection. Once a parcel is identified for future preservation on the town's official map or master plan, it has some protection against development under the Municipal Land Use Law (N.J.S.A. 40:55D-440). However, the municipality must acquire the parcel at fair market value and, if the acquisition doesn't take place, must compensate the landowner for the loss of use of the property for the one year stay of development during which the town was attempting to finalize the acquisition.

Regional coordination

Having an official open space plan also facilitates good regional planning. Neighboring communities can plan their open spaces to work in concert with each other. For example, if a town knows that an adjacent town plans to preserve a greenway or other block of open space on its border, it may get more open space value for its money by purchasing adjoining lands. One long greenway or large tract of preserved land may provide more natural resource and recreation value than two smaller, unconnected tracts. Research for the plan should also include an examination of the county's open space plan, if one exists, to see how the local preservation efforts can fit into or capitalize on county preservation efforts.

Funding or stewardship partners who can help the municipality achieve mutual open space goals, such as land trusts, watershed assns., etc. should also be listed in the OSP.



Preserving open space helps protect water quality in NJ lakes, rivers, streams and aquifers. Photo by Cheryl Fleishman

Who creates the open space plan?

Environmental commissions and open space committees have important roles to play in developing municipal open space plans, especially if the town is interested in qualifying for State funding through the Green Acres or Department of Agriculture Planning Incentive Programs. In some towns, the environmental commission serves as the open space committee, but many towns have a separate open space committee that includes one or more representatives from the environmental commission. Either way, the environmental commission should participate fully in the open space planning process.

Open space preservation is a primary environmental commission responsibility. The State enabling legislation requires commissions to "...keep an index of open areas..." and authorizes them to "...recommend to the planning board... plans and programs [pertaining to open areas]

for inclusion in a municipal master plan, and the development and use of such areas..." (N.J.S.A. 40:56A).

Most environmental commissions have developed an environmental resource inventory (ERI), also called a natural resource inventory (NRI). Based on GIS mapping data, aerial photography and scientific reports, these documents use maps, text, charts and graphs to identify and describe a community's important natural resources such as wetlands, water bodies, habitat, forested areas and steep slopes. The ERI provides the basis for evaluating which lands should be preserved for their natural resource value.

Members of the open space committee and/or environmental commission, depending on their skills, may choose to do all of the work on the open space plan (research, community outreach, mapping and writing). Or, with financial support from the governing body, they may assign some tasks to the municipal planner or other staff, or they may hire an environmental consultant. In

any case, the plan should be formulated with participation from residents, municipal officials, boards, commissions and staff, county park or open space representatives, local land trusts and watershed associations. Any local boards with an interest in open space and recreational lands, such as the parks and recreation commission, board of education and planning board, should be consulted and kept informed. It is important to build consensus throughout the process so that residents and local officials will support the plan's adoption into the master plan.

Funding the open space plan

Costs vary depending on who is preparing the OSRP. Completing a plan in house will cost less than hiring a consulting firm to do the work. If a



town has an open space tax in place, it may be able to use those funds to update or develop an OSRP. The cost of hiring a consultant can range from \$10,000 – \$20,000, depending on the size of the municipality and how much information the municipality is able to supply to the consultant.

Towns may seek grant funding from private sources, and/or use municipal budget funds to cover the cost. Some towns allocate money from their local open space trust fund (generated by the town's open space tax) to help create the OSRP, which will ultimately guide the use of those funds.

Elements of an open space plan

The NJ Department of Environmental Protection's (NJDEP's) Green Acres Program requires specific categories of information in an OSRP to qualify for the Planning Incentive Program. (An OSRP Guidelines document is available at www.nj.gov/dep/greenacres.) The open space plan format outlined below and detailed in the following pages covers the category headings and information required by Green Acres.

- ✓ EXECUTIVE SUMMARY
- ✓ GOALS & POLICIES
- ✓ INVENTORY OF OPEN LANDS
- ✓ NEEDS ANALYSIS
- ✓ RESOURCE ASSESSMENT (EVALUATION OF OPEN LANDS)
- ✓ ACTION PLAN/RECOMMENDATIONS
- ✓ OPEN SPACE SYSTEM MAP
- ✓ DISCUSSION OF PUBLIC PARTICIPATION
- ✓ STATEMENT OF PLANNING BOARD ADOPTION

Executive Summary

An open space plan, like any other comprehensive plan, should begin with a description of its origin and purpose. It should provide the reader with a brief overview of the project and the way

Community gardens, like McBain Farm in Closter Borough, are a popular use of open space in NJ.

Providing context

Because a municipal or county open space plan is a long-term plan, the document will serve as an official reference long after it is written. Some or most of its authors may no longer be available to provide institutional memory. That's why it's worth the effort to include background and introductory materials that will give future users insight into the document. It is also a good idea to include the names and titles of the individuals who worked on the plan, the roles they played (research, mapping, community outreach), the span of time over which the work was done, and data sources.

Some towns preface their open space plans with a brief history of the community relative to its land use, relating environmental, historic, cultural or recreational trends that have affected or will affect the town's open space needs and goals.

it was carried out, including a description of public involvement in the process. The executive summary should briefly present the plan's significant findings relative to recreation and open space needs, and the actions proposed by the plan.

Goals and policies

This section should present the principles, assumptions, goals and policies that are the basis for the open space plan. This information is necessary to establish that federal, State and local tax money spent to carry out the open space plan will be used for proper public purposes.

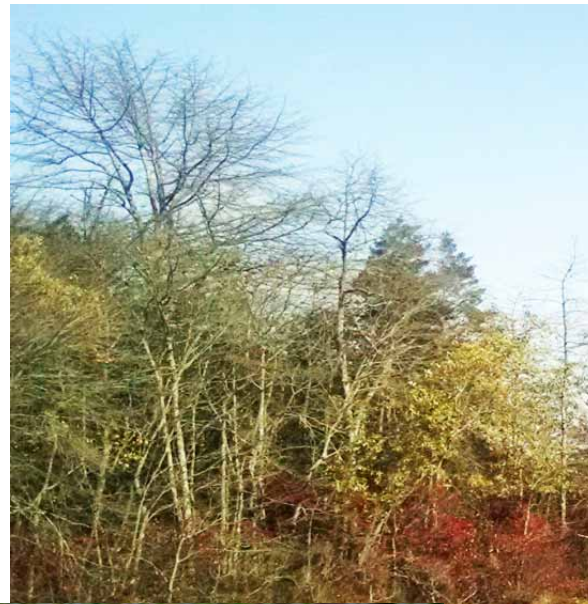
Appropriate goals or principles can reflect the community's desire to:

- provide adequate active and passive recreational opportunities on an equitable and accessible basis for all citizens;
- protect the quantity and quality of surface and groundwater;
- protect sensitive environmental features such as wetlands, steep slopes, soils and critical habitats;
- link community resources and support the community's need for safe, multi-modal circulation through a system of greenways and trails;

- protect historic areas;
- maintain plant and animal biodiversity;
- minimize erosion or damage from flooding;
- maintain community character;
- provide community gathering spaces;
- coordinate programs with local boards and surrounding communities;
- maintain consistency with State and county land use plans.

The goals and principles stated in the plan should correlate closely with and reference those in the master plan. If they do not, this is a signal that a re-examination of either the master plan or the open space plan is in order, to bring it in line with the community's current views. The ultimate goal is to have the open space plan adopted into the master plan, and the two must be in agreement in order to provide a clear roadmap for local officials. As a land use planning document, the local open space plan should also

Sheppards Mill Pond in Greenwich



Wildlife protection is one of the important benefits of preserving open space.



be consistent with the county open space, conservation, recreation and farmland preservation plans and the State Plan Policy Map. (nj.gov/state/planning/state-plan.shtml)

Inventory of open lands

This section should include a listing of every parcel of vacant, recreational or undeveloped land, public or private, within the municipality, and should identify those lands with permanent protection status vs. generally undeveloped lands. For each parcel, collect information on type, size, location (lot and block, street address, directions as needed), facilities, current use, degree of current protection (conservation easement, deed restriction, etc.), form of ownership or control, owner, recreation opportunities and natural resource characteristics.

Occasionally, communities opt to include in their open space plans a parcel that has a structure on it. For land that is particularly valuable in

an environmental, historic or strategic way (say, for access or buffering), the possibility of preservation should not be ruled out simply because a parcel is not vacant. However, Green Acres funding can only be applied for properties with structures that will either be demolished to create open space, or that will support outdoor recreation or conservation, or be preserved as an historic site. (See Resources for information on funding for historic preservation.)

GETTING STARTED

There are several ways to pursue information on open lands. First, you will need access to up-to-date tax data and maps. Start by consulting with the local tax assessor, who is intimately familiar with the tax records and maps of your town and able to advise you about the most efficient way to approach the search. The assessor also may be able to provide anecdotal information about certain parcels or property owners



who could prove helpful in evaluating the potential to preserve specific properties.

In small, developed municipalities, most open spaces and vacant parcels are probably known or easily recognized through a “windshield survey.” They can then be identified by block and lot numbers using the tax map. Large municipalities and rural towns require more research because property boundaries may not be obvious, and much of the land cannot be seen from a roadway.

If your town has a GIS or other digital database that includes block and lot information, producing maps of open land parcels identified by block and lot as well as by use class/status will be relatively easy.

If your town does not have GIS parcel data but has computerized its tax data, ask the tax assessor to help you sort properties by class to identify vacant lands and agricultural lands. Your county planning department also maintains municipal tax and block and lot information that is usually free to the municipality upon request. This can be a good starting point for your compilation.

If your town is still on a manual system of tax records, you may need to look at tax maps to identify block and lot numbers within open areas, then look up individual property listings in the tax assessor’s field book(s) to determine ownership and other information.

If your municipality has an “official map,” obtain a copy. If not, find the largest, most complete map available that shows your municipality all on one sheet, because each paper tax map will probably show only a small slice of the municipality. Orienting and referencing the individual maps can be a challenge.

The NJDEP provides digital and web-based aerial and other natural resource maps of the entire state. (www.nj.gov/dep/gis/geoweb_splash.htm) Aerials provide a “big picture” view that may help you locate open space. (Note that it takes DEP several years to digitize aerial photos, so the most current aerial maps may not reflect very recent land changes.) Along with natural resource maps, aerials show the natural features and patterns (surface waters, vegetation, green corridors, etc.) that will be the foundation of an open space preservation plan. These natural features maps also exist in an ERI.

NJ Conservation Blueprint (www.njmap2.com/blueprint) also has prioritization models for the most critical open space, farmland, and community greenspaces that should be considered for preservation in New Jersey.

ORGANIZING THE DATA

For inventory purposes, open areas can be organized in a variety of ways: by location or region (such as a watershed); by natural features;



Community gardens bring people together in many NJ towns

Photo by Cathy Yeulet

or by category of ownership. A list organized by type of ownership would be broken down into:

- **Public lands** (owned by municipal, county, State or federal government): parks, trails, natural areas, school grounds, sports and recreation areas, public land leased for farming, reservoirs, military reservations, or capped municipal or county landfills
- **Private lands owned by nonprofit organizations:** camps, trails, natural areas, sports and recreation areas, private school grounds, historic sites, lakes
- **Private lands owned by individuals or corporations:** agricultural, utility-owned (such as railroad or power line corridors), undeveloped real estate purchased on speculation; corporate campuses; oversized developed parcels that have the potential to be subdivided; homeowners' association-controlled dedicated open space; recreational lands (camps, rifle ranges, private lakes, ski trails, etc.); natural areas devoted to tourism or eco-tourism; or capped landfills
- **Lands already preserved through purchase of development easements** by state/local governments or nonprofits (land trusts).

NJ Green Acres maintains a Recreation and Open Space Inventory (ROSI) database that lists municipal, county and nonprofit parkland encumbered by the Program (www.nj.gov/dep/greenacres/openspace.html). The State Agriculture Development Committee (SADC) maintains a list on its website (www.nj.gov/agriculture/sadc/) of lands preserved by the Farmland Preservation Program.

Tax records will indicate which lands are assessed as farmland. Consult the town's farmland preservation plan (if one exists) and check with your county agricultural development board or farmland preservation coordinator to confirm which agricultural lands are protected by easements. You will also need to identify vacant lands with approved development plans. These and properties with pending applications may be out of reach, although development plans do, on occasion, fall through.

Ideally, information about each parcel on the open space inventory should be entered into a spreadsheet or other database. This will make it easy to collate and print the data in a table or

report, and will also allow you to update information (for example, changes in ownership or use) as time passes.

In addition to listing parcels by block and lot number, you should show the inventory of open spaces on a map or series of maps. If you do not have access to GIS maps, paper tax maps shaded manually with different colors (or with colored acetate overlays) showing various types of uses and ownership will work.

THE ROSI

If a town obtains Green Acres funding, it must list all properties funded by Green Acres and all lands already held and dedicated by the town for recreation and conservation purposes on a recreation and open space inventory (ROSI – pronounced "Rossi"). If a town has a ROSI, it should be included in the OSRP. Properties on the ROSI cannot be removed or converted to uses other than recreation or conservation without NJ State House Commission approval, which is difficult to obtain.

The town may own other properties, including tax lien properties, which are not included on the ROSI. Some of those properties may have high environmental values or may be adjacent to other preserved properties and should be reviewed for possible permanent preservation as open space. Because the town owns them, no funding will be needed for their acquisition.

UPDATING OPEN SPACE INVENTORIES

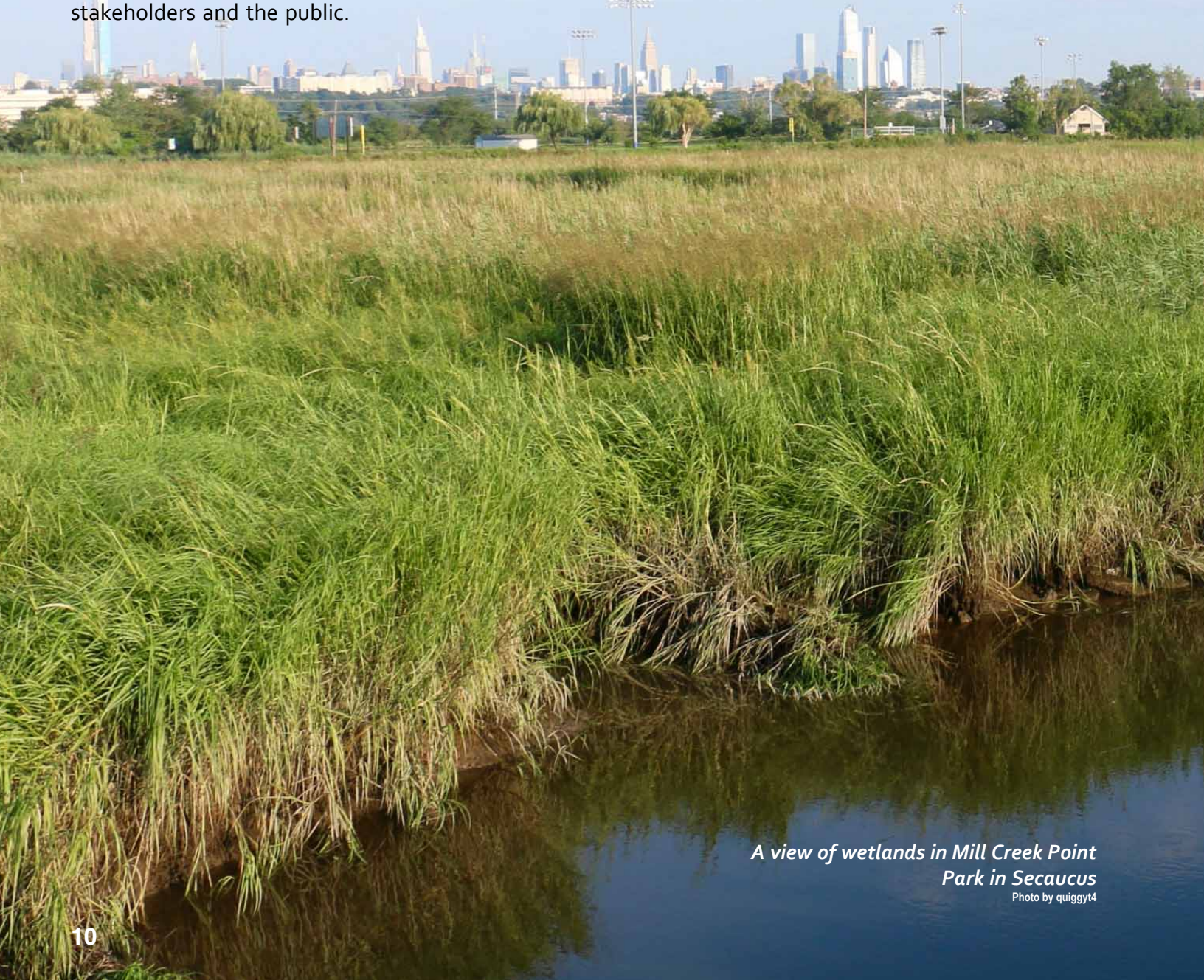
Once an open space plan is completed, it is important for the open space committee or a designated staff member to keep the town's inventory of preserved properties and easements current. Town acquisitions and open lands held by homeowner's associations as a result of development plans should be recorded as they occur. Counties generally update their preservation lists annually, as do Green Acres and the State Agriculture Development Committee (SADC). These sources should be checked because the information isn't automatically passed along to the municipality. Also obtain updates from local and regional land trusts and nonprofit landholders, and request that they always notify the municipality of their preservation projects. A review of the open space priority list, if one exists, should also be conducted annually. The open space

committee and staff can utilize the updated open space inventory information as a working list, but the planning board will not necessarily incorporate the updates each time/year into the adopted open space plan.

Needs analysis

The completed inventory and map(s) will give an accurate picture of the existing open space network of active recreational, passive recreational and natural resource lands. For a needs analysis, you will examine the amounts and types of preserved open space, and determine the extent to which these lands satisfy present and projected needs in each category. These determinations should be made with input from public officials, municipal staff, community leaders, stakeholders and the public.

Although various categories of public and private lands make up the existing open space network, for purposes of an OSRP the Green Acres Program advises that you focus your plan on the need for facilities and open spaces for which the local government will assume primary responsibility. The status of private open space, even if open to the public (such as a campground, ski resort or nature preserve), is not necessarily permanent. If private lands do not have deed restrictions, they may at some point be sold for development. Even public lands with no covenants can be sold off for development. However, other levels of government and private, nonprofit organizations such as land trusts, watershed and conservation associations, can play a significant role in protecting land for natural resource purposes and can be important



A view of wetlands in Mill Creek Point Park in Secaucus

Photo by quiggyt4

partners. Although open space is vital for passive and active recreation, it is equally important for the protection of water resources, wildlife, vegetation and other natural features that society often takes for granted.

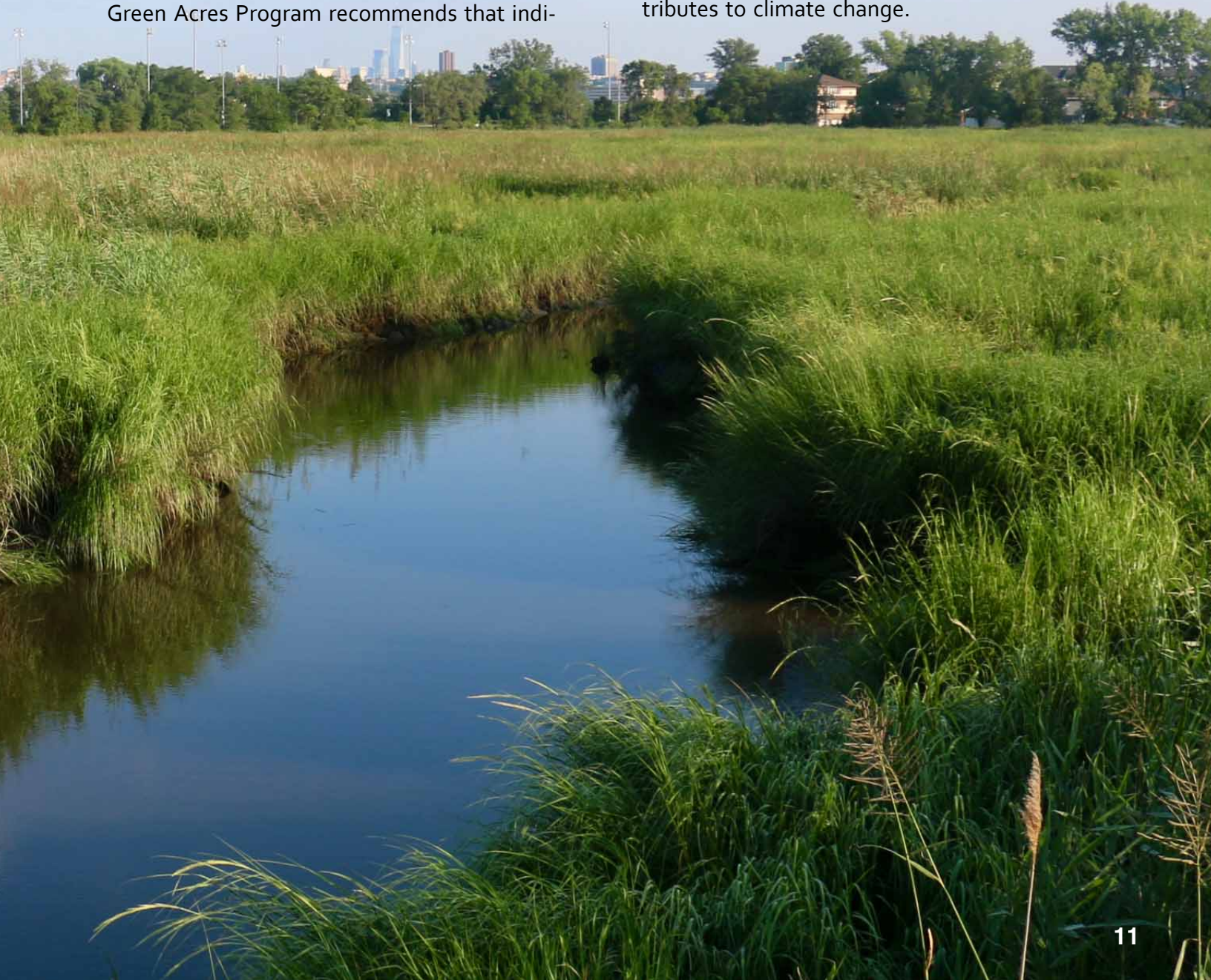
STANDARDS FOR DETERMINING NEED

To determine your municipality's future needs for recreational lands, you will need to establish the minimum acceptable standards for recreation for your community. You may choose to use a standard land-per-population formula or you may decide to be very specific, setting individual standards for numerous individual categories of recreational activity (specific sports, hiking, biking, etc.).

Balanced use – Based on “balanced land use” guidelines described in N.J.A.C. 7:36, the NJ Green Acres Program recommends that indi-

vidual municipalities should set aside 3 percent of their developed and developable area for recreation. The guidelines also suggest 7 percent be set aside by each county, 10 percent by the State, and 4 percent by the federal government. A one-size-fits-all approach, however, may not be sufficient to deal with a community's unique needs.

Equitable access – Open space planning should also consider equitable access to recreational facilities and green spaces for all segments of the community, as defined by race, income, and age, with particular attention to environmentally overburdened communities and urban areas. In addition to addressing environmental justice concerns, trees and vegetation on green spaces help to mitigate the heat island effect, which increases the temperature in highly developed areas and contributes to climate change.



Flooded streets are an increasingly frequent sight in NJ due to climate change.

Photo by Ungvar



Climate change – Climate change and associated sea level rise are likely to affect public open space and recreation areas. About 42 percent of all New Jersey municipalities are coastal and will need to address sea level rise that could range from 1 to 1.8 feet by 2050 and 2.4 to 4.5 feet by 2100. Adapting to sea level rise will require communities to plan for resilience by engaging a wide variety of constituencies. The NJDEP has prepared a planning guide for coastal communities, *Building Ecological Solutions to Coastal Community Hazards*, which details ways local governments can plan for resiliency.

(www.state.nj.us/gsp/pdf/Reports/DEPComprehensiveOutdoorRecreationPlan.pdf)

Floodplain acquisitions – Increasingly frequent coastal flooding has made it clear that constantly rebuilding in flood-prone areas is not sustainable. New Jersey's Blue Acres Program was instituted after Superstorm Sandy devastated many communities. The Program evaluates flood-prone properties throughout the State for conversion to open space, including neighborhoods near the coast, bay shores, rivers and tributaries.

(www.nj.gov/dep/greenacres/blue_flood_ac.html)

The recreation or parks agency and the organizations that conduct active recreation programs

should be consulted about these needs. They often have very specific recommendations that can best be obtained through direct conversations. A recreation needs assessment may already exist.

Once you have settled on a desired level of facilities, you can examine current activity levels and participation patterns, and project demographic trends (population, age groups, leisure time, income, etc.) that will impact recreation demand in the future. Make sure to factor in the condition of existing facilities and barriers to participation, such as user fees, crowding or special needs access.

Resource assessment

Setting guidelines for protecting natural features is not as straightforward a process as for recreation, because the natural resources of each municipality are so varied. Although all natural resources are important, the most unique or critical are not distributed evenly among municipalities. It will not be easy to set a standardized figure, such as acres per population or percentage of land area, for natural resource land that should be protected. You will need to know what you have (surface and subsurface waters, soils and bedrock, wildlife, vegetation, steep slopes, ridgelines and other natural characteristics) in order to decide on a reasonable amount to pro-

tect. Goals for preserving natural resource lands will likely be based on selected areas, rather than a specific formula or amount.

Once you have compiled a complete list and map of open space parcels, the next task is to establish a system for analyzing and evaluating those parcels to determine their value and relative importance as candidates for preservation. The recreation and open space needs and objectives should be distilled into a set of guidelines or a ranking system for evaluating parcels for preservation, as properties and funding become available.

Any ranking system must reflect the unique priorities and existing resources of the community. A densely populated and growing municipality with few remaining open spaces will probably put a high priority on lands that are suitable for recreation. The preservation of prime agricultural lands may be high on the list of objectives in a rural area. Towns that rely heavily on recreational industries (ecotourism, beach activities, etc.) might wish to ensure the preservation of open lands that support those industries. And towns with unique natural features such as limestone

aquifers or forested wildlife habitat may assign greater value to those areas. Water protection is considered a high priority in almost any community.

In rural areas with a lot of undeveloped land, some municipalities limit their open space purchases to parcels of a certain minimum size, such as five acres or more. Obviously, this is not a strategy for more developed areas and cities, where space is limited and neighborhood or pocket parks are a primary form of open space. Even in rural areas, limiting consideration of smaller parcels could result in a missed opportunity. A modest parcel might be important as part of a greenway corridor, or might provide access to, or buffering for, a stream or lake.

Towns that have successfully preserved the larger open spaces targeted in their OSRP often go back to revisit and “fine tune” their plans some years later, to identify pivotal smaller or connecting parcels to fill in spatial, resource protection and usage gaps.

PRINCIPLES OF PRESERVATION

While each municipality has different needs, some general principles apply to all communities pursuing open space. For example:



A Japanese Taiko Drum and Dance troupe performs traditional music at a cherry blossom festival at Branch Brook Park in Newark.

Photo by James Kirikakis

- It is generally better for both natural resource protection and recreational purposes to preserve large, contiguous areas of open space (such as a greenway) rather than many small, scattered parcels.
- The more development pressure on a parcel targeted for preservation, the more quickly the town will want to act. An open space ranking system should assign more weight to lands that are ripe for development.
- The cost/benefit ratio is another common theme of open space preservation. Although some municipalities have shelled out top dollar for small, strategic open space parcels, generally all strive to get the most land for the amount of money they have to spend. Therefore, a ranking system must consider relative cost.

Of course, not all parcels must be purchased outright to be preserved. Some lands, particularly agricultural lands, can be preserved through the purchase of development rights. In other cases, a property owner may opt to donate a portion of a property's sale price, and then reap tax benefits from the contribution. Towns also must consider what they will save in services (schools, sewers, roads, etc.) over the long run by purchasing land that would otherwise be developed.



Kayaking in the Great Swamp National Wildlife Refuge Photo by Joanne Dale

IMPORTANCE OF THE ERI

A comprehensive ERI, usually compiled by the environmental commission and adopted into the master plan by the planning board, will be a municipality's primary guide to evaluate natural and environmental features for potential open space protection. One of the most important reasons to preserve land is to protect water quality and supply.

The ERI describes and maps the location of surface and ground waters (streams, lakes, rivers and aquifers) that need buffering, as well as sensitive features – steep slopes (where development causes erosion and results in sedimentation), floodplains, wetlands, groundwater recharge areas and wellhead areas. The ERI should contain information on soil types (also a factor in determining a parcel's value as preserved farmland), vegetation and species habitat. If possible, consult with the people who gathered the ERI information to benefit from their firsthand knowledge of local terrain and natural systems.

If no ERI exists, you can utilize NJ-GeoWeb, NJDEP's web-based maps of the town to see the location of wetlands, surface waters, soils and elevations/slopes, and many other environmentally-significant features. (www.nj.gov/dep/gis/apps.html)

Another excellent data resource is NJ Conservation Blueprint, a data-driven, interactive mapping tool made possible through a partnership of The Nature Conservancy, Rowan University, and the New Jersey Conservation Foundation, together with a collective of 21 conservation-focused groups, both governmental and nonprofits. (www.njmap2.com/blueprint/)

Open space committees and planners across New Jersey have approached open space ranking systems in a variety of ways, from descriptions of four or five general priorities in a matrix, to mathematical formulas. The most common approach comprises a list of characteristics, giving a check or a point value for each, depending on the degree to which a parcel contributes to the community's open space objectives. Desirable characteristics are sometimes grouped into categories like recreational/cultural, agricultural, historic, cost, development-limiting potential, hazard reduction, linkages, conservation and protection of water quality. The scores in each category are weighted and/or averaged, then the averages are totaled to yield a final numerical rating for a parcel.

The open space plan should describe the ranking methodology. It will be the basis for the open space committee to prioritize actions to implement the plan and also for developing a priority list of properties, if one is desired. However, it is not common practice to include the numerical ratings of specific properties in the open space plan; doing so could inflate the prices of the parcels that are high on the priority list. Still, the information is public, and must be provided to any individual who requests it.

Instead of creating a priority list, many towns take a more conceptual approach to identifying potential open space lands, highlighting broader areas or swaths of priority that would contribute to the open space network, and then listing all parcels within those areas. The properties are not ranked; rather, individual properties are evaluated (using the ranking system) as funding and parcels become available. Clusters of properties, greenways, and connectors within the conceptual areas can be listed by block and lot, current owner and address, location, and current status. This makes the OSRP more comprehensive and doesn't limit funding to a small set of properties whose owners may or may not be interested in preservation. It also delineates areas that would never be preserved based on their individual merits (for example, because they are too small or already developed) but which are part of a greenway and important to the health of the water body at the center of the greenway. An education campaign for landowners in the priority areas can be highly beneficial. Either way, it is important for the committee to use a defined ranking approach as the primary guide for deciding how to spend open space funds.

Action plan/recommendations

This section should present an action plan for achieving the orderly and coordinated execution of the open space and recreation plan. The Green Acres Program requests a five-year time frame



Preserving farmland helps foster cranberry farming, an important industry in NJ. Photo by Olivier Le Queinec

for an OSRP, with periodic review and updates. The action plan can range from general recommendations in a "menu" type of format, to very specific recommendations for each parcel.

The action plan should include a discussion and recommendations on:

- **Preservation techniques:** purchase; donation; conservation easement; deed restriction; lease-purchase; liens/bankruptcies; purchase by State or federal agency; land swaps (i.e.; trade of a donated or publicly-owned parcel not suitable for open space for a parcel that is suitable); ordinances; preserved common open space as part of planned unit developments (PUDs); transfer of development rights (TDR); zoning and subdivision changes such as clustering or conservation design; protection of sensitive environmental features
- **Funding sources:** Green Acres Program grants and low-interest loans; local open space tax; county open space tax; nonprofit organizations (land trusts, conservation organizations, watershed associations); private donations of land, easements, or funds; NJ Environmental Infrastructure Financing Program loans; NJ Department of Agriculture farmland preservation grants; and NJ Historic Preservation Trust loans. (See Resources section for information on funding sources for natural resource, recreational or agricultural lands, and historic preservation.)

- **Monitoring systems:** early-notice-of-sale agreements with owners of large undeveloped tracts; a system of communication with owners of priority parcels to keep abreast of possible changes in ownership or use (i.e.; intention to file development applications); process for tax collector to inform the committee of all new tax liens or other status changes for parcels in the open space plan, such as entering or withdrawing from the farmland assessment program; notices of application for an NJDEP Letter of Interpretation delineating wetlands on a property, which can alert the open space committee to potential future building or development applications
- **Public education:** promoting public knowledge and appreciation of recreation and open space values or needs of the community
- **Maintenance and management of preserved open space:** In most municipalities, active recreational open spaces are managed by a parks commission and maintained by the town's department of public works or a separate parks department. The maintenance of town-owned natural areas is another issue, especially if there is a significant amount of that kind of open space. Woods, swamps and meadows do not lend themselves to easy inspection or access by vehicles and require a different sort of upkeep and monitoring than the public works crew may be willing or able to provide.
 - o In some towns, environmental commissions take responsibility for monitoring and maintaining trails in natural areas. "Friends" organizations can be established for the same purpose, or a town may decide to contract with an existing nonprofit conservation organization to carry out that function.
 - o In cases where a conservation easement is in place, the property owner will likely be responsible for maintenance. However, municipal officials or volunteers should monitor all easement properties, visiting the sites at least once a year to make sure that the terms of the easements are being honored. The open space plan should recommend a system for monitoring easements and dedicated private open space, or list the creation of such a system as one of the plan's goals.
- **Timetable:** The open space plan should suggest an action corresponding to the "Goals" section. Any timetable must be general and flexible, but timeframes are necessary to keep the program moving and to have some basis for evaluating the plan and its execution. The plan may also contain recommendations concerning open space taxes and the establishment or restructuring of the committee or other entity that will be responsible for implementing the open space plan.
- **Ordinances:** The plan should recommend any local ordinances the town should adopt to further the goals of the open space program. For example:
 - o A clustering or conservation design ordinance encourages developers to condense lot sizes and leave parts of a tract undeveloped, dedicated as common open space or retained for agriculture.
 - o A lot-size averaging ordinance allows some concentration of development in appropriate areas, with more environmentally sensitive land left open. Clustering and lot-size averaging result in preserved open space at no cost to the municipality.
 - o Changes in zoning density or buildable lot area restrictions can also help to retain more open space.
 - o Ordinances that protect water quality and environmentally sensitive features can limit development of open lands.
 - o Many municipalities have adopted ordinances to restrict development on steep slopes and along stream corridors and ridgelines.

Open space system map

The system map should identify the lands that have permanent preservation status. Those lands typically represent the building blocks upon which the system of greenways or open space expands. The system map shows the location and configuration of all existing recreation and open space sites listed on the inventory, as well as all proposed parkland, greenways and open space of conservation and recreation interest contained in the OSRP. If the plan contains a priority list for acquisition, those specific properties will be identified on the system map. If the plan utilizes



Volunteers tend a rain garden at Woodrow Wilson High School in Camden.

Getting the public involved

Green Acres requires an OSRP to describe the public participation process that was used to gather citizen input and assess community open space and recreation needs. A summary of this process is required in the Executive Summary.

Two well-advertised public meetings are mandatory, but the local government is free to use any method it believes is most effective for public participation. It is a good idea to include tran-

scripts or summaries of the public meetings, documenting the public's comments and recommendations.

To qualify for the Green Acres Planning Incentive Program, the OSRP must be adopted by the planning board as part of the municipal master plan. Although only two public meetings are mandatory, it is wise to incorporate a high degree of community input and public education into the open space planning process. As the environmen-

the conceptual approach to acquisition, the system map will show swaths of color encompassing all of the potential open space properties plus greenways and connecting linkages. A greenway should be depicted clearly so that landowners do not confuse it with a trail. Trails, including on-road bicycle trails and those on public land, can be included in the OSRP System Map, but it is not appropriate to depict proposed trails running across private property when landowners have not agreed to such a use.

The Green Acres Program suggests that municipalities combine the Executive Summary and the System Map into one document that can be reproduced or posted on the town website as a public education tool.

Green space around an historic structure can enhance the public's enjoyment of the site and add context to the experience, as with Waterloo Village in Byram Twp. Courtesy of CE Photography

Additional materials

A summary or the complete text of open space ordinances, such as the ordinance that creates the open space committee and the one that establishes an open space tax and/or trust fund, should be included in the open space plan, either within a specific section or as an appendix. Include or summarize other open space documents, such as a greenways plan or a management plan for a special area such as a lake or reservoir, and explain how they will relate to your overall plan for open space.



FACTORS FOR RANKING LANDS FOR PRESERVATION

WATER QUALITY:

- Has or abuts surface waters (lake, stream, reservoir, etc.)
- Has or abuts high quality (C1, trout production) streams or headwaters
- Groundwater recharge area
- Wellhead area
- Wetland buffer area
- Steep slopes (greater than 15 percent, 25 percent)

CONSERVATION:

- Plant and wildlife habitat
- Threatened species habitat
- Contiguous acres of desirable vegetative cover (mature hardwood, etc.)
- Proximity to preserved land

DEVELOPMENT PRESSURES:

- Development application filed
- Land is for sale
- Zoning
- Farmer-owner approaching retirement
- Proximity to other developed areas
- Sewer/septic potential

COST:

- Purchase price
- Alternative methods of protection
- Costs of services avoided by preservation

POTENTIAL FOR LINKAGES:

- Linear recreation (trails, bike paths)
- Greenways
- Other similar/preserved contiguous parcels

QUALITY OF LIFE/CULTURAL:

- Buffering land uses
- Development-limiting
- Scenic or distinctive landscape, ridgeline
- Floodplain
- Rural ambiance
- Farmland protection
- Historic

AGRICULTURE:

- Quality of soils
- Drainage
- Proximity to other farmland
- Proximity to conflicting land uses
- Proximity to agricultural support

VULNERABILITY TO COASTAL FLOODING

NJDEP Blue Acres Program (www.nj.gov/dep/greenacres/blue_flood_ac.html)

RECREATIONAL/CULTURAL:

- User accessibility
- Topography suitable for athletic activities
- Absence of environmental constraints
- Public access to coastal or inland water
- Potential for buffering between neighboring use (if level of recreational use would require it)

*Scarlet
Tanager*
Photo by Charlie Finneran



tal commission and/or open space committee proceeds, its members should look for opportunities to make informal presentations, for example, to the PTA, seniors groups and other community organizations, and to keep the public updated through the municipal website and releases to the local press. When residents learn the benefits of open space preservation and understand the process for selecting parcels to preserve, they will be more likely to 'buy in' to the open space plan,

to fund it and to support it through the implementation phase.

The OSRP is required to be updated every ten years. Updates are to include any needed changes to the System map, goals, and other Plan sections. (www.nj.gov/dep/greenacres/pdf/2019_planning-incentive-application.pdf)

RESOURCES

WITHIN YOUR TOWN

- The municipal tax collector, town engineer, town planner, environmental commission, planning board, park/recreation agencies and park maintenance/DPW staff have a wealth of local data and information.
- The municipal master plan will contain base mapping and demographic and growth management information.
- The ERI contains natural resource information and mapping.

SPECIAL REGIONAL BODIES

- The Pinelands Commission (www.state.nj.us/pinelands)
- Highlands Council (www.highlands.state.nj.us)
If the municipality is subject to catastrophic flooding, there may be a regional flood control commission for the area that can provide useful information.

COUNTY AND LOCAL

County planning departments, open space committees, environmental commissions and parks departments have data, maps and plans that may be useful. Review the county's open space, farmland preservation, trails or greenway plans, as well as plans from adjacent municipalities.

- County Soil Conservation Districts (www.nj.gov/agriculture/divisions/anr/nrc/conservdistricts.html)
- Soils maps and data are available through NJDEP's GeoWeb (www.nj.gov/dep/gis/geoweb splash.htm)
- USDA Natural Resources Conservation Service (NRCS) Web Soil Survey provides soil data and information for more than 95 percent of the nation's counties produced (websoilsurvey.nrcs.usda.gov/app/).

STATE / FEDERAL

- NJDEP's GeoWeb (www.nj.gov/dep/gis/geoweb splash.htm) has extensive mapping of the State's natural resources.
- The NJDEP Green Acres Program, (609) 984-0500 (www.nj.gov/dep/greenacres) offers grant and loan programs for land acquisition and

preservation, including Blue Acres shoreline parcels (www.nj.gov/dep/greenacres/blue_flood_ac.html), and technical assistance for open space planning and land assessment.

- The NJ Infrastructure Bank, (609) 219-8600 (www.njib.gov) offers low-interest loans for land acquisition that complements water quality initiatives by creating buffer areas around stream corridors.
- The NJ Department of Agriculture, SADC Farmland Preservation Program, (609) 984-2504 (www.nj.gov/agriculture/sadc) offers grant and loan programs for agricultural land preservation, and technical assistance for planning and assessment.
- The NJ Historic Trust, (609) 984-0473 (www.state.nj.us/dca/njht/programs) offers grants for historic preservation, restoration, acquisition.
- The NJDEP NJ Geological Survey, (609) 292-2576 (www.state.nj.us/dep/njgs) provides mapping and data on geology and groundwater resources.
- The NJ Office of Planning Advocacy, (609) 292-7156 (<http://nj.gov/state/planning>) offers information about the NJ State Development & Redevelopment Plan and statewide planning areas.
- The Federal Emergency Management Agency (FEMA), (877) 336-2627 (<https://msc.fema.gov/portal/home>) has floodplain maps for NJ.

NONPROFIT ORGANIZATIONS

- The Association of NJ Environmental Commissions (ANJEC), (973) 539-7547 (www.anjec.org) has digital and paper copies of dozens of Open Space & Recreation Plans and ERIs from NJ municipalities, and a database of environmental ordinances.
- NJ Conservation Blueprint, (www.njmap2.com/blueprint/) a data-driven, interactive mapping tool made possible through a partnership of The Nature Conservancy, Rowan University, and the New Jersey Conservation Foundation, together with a collective of 21 conservation-focused groups, both governmental and nonprofits.

Resources Continued

- NJ Audubon Society, (609) 861-1651, (www.njaudubon.org) has information on NJ birds, their habitats and breeding sites.
- The Land Conservancy of NJ, (973) 541-1010 (www.tlc-nj.org) is a nonprofit land trust that provides open space planning, preservation and stewardship information and services.
- NJ Conservation Foundation, (908) 234-1225 (www.njconservation.org) is a statewide land trust organization that protects natural areas and farmland through acquisition and stewardship.
- The NJ Highlands Coalition (<https://njhighlandscoalition.org/>) has GIS maps for critical resources in the Highlands Region and offers valuable support for Highlands municipalities



Open spaces provide habitat for the monarch butterfly, a species of special concern in NJ.

working to protect the water, ecological integrity and biodiversity of the New Jersey Highlands..

- The Pinelands Preservation Alliance (<https://pinelandsalliance.org/>) works to preserve the Pine Barrens ecosystem, promote wide public engagement in their preservation, and advance acquisition of land and development rights by private and public conservation agencies.
- Preservation New Jersey, (609) 392-6409 (www.preservationnj.org) provides technical assistance and information on historic preservation.
- Local Land Trusts and Watershed Organizations
- The Trust for Public Lands (www.tpl.org/) has mapping and databases concerning open space taxes in municipalities as well as areas to preserve to adapt to climate changes.

For further information, contact



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For over 50 years, The Association of New Jersey Environmental Commissions has been a statewide nonprofit organization that provides leadership, education, and support for environmental commissions and other local boards and public officials, and partners with other organizations to advocate for strong state and regional environmental policy.