

Taking the Next Step:

Montgomery Township
Municipal Assessment

October 2003



The Stony Brook-Millstone Watershed Association

Since 1949, our member-supported organization has worked on behalf of local residents to protect, preserve and enhance our local environment. We are dedicated to caring for the integrity of the natural ecosystems of the 265-square miles of central New Jersey drained by the Stony Brook and the Millstone Rivers. We focus on environmental education, watershed stewardship and water resource advocacy – helping future generations understand the wonders and workings of the natural world we are preserving on their behalf.

We are headquartered on a 785-acre nature reserve in Pennington that includes a community supported organic farm, nature center, pond, and a 10-mile trail system that leads visitors through our woodlands, wetlands, and fields.

Many activities within our watershed affect the quality of streams, wetlands, ground water and forests. By changing how we carry out these activities, we can improve our environment and our quality of life. So whether at home, work or play, we can all make a difference.

If you have questions about this report or want to learn more about membership support, volunteer opportunities, and new programs please contact us at: (609) 737-3735.



www.thewatershed.org

Executive Summary

The protection and health of a watershed relies a great deal on the land use laws and policies that govern development. In the past, the Stony Brook-Millstone Watershed Association (the Association) had received requests from various municipalities for assistance with drafting ordinances, improving zoning and increasing local environmental quality. The Association wanted to provide a more comprehensive analysis for local municipalities while continuing to respond to these requests. Thus, the Municipal Assessment Project was created to assist municipalities in developing additional proactive measures to ensure that natural resources are preserved and the necessary regulatory structure established.

When beginning the assessment, members of the Montgomery Township Committee, Planning Board, Environmental Commission, the Shade Tree Committee, and the Health Department articulated their general goals and vision for the Township by answering our Framework Questions. After evaluating these responses we reviewed Montgomery Township's land use ordinances, policies, best management practices, and the recently drafted Master Plan using our own 15-page protocol. We also interviewed key personnel about more detailed information to complete the assessment.

The results of the assessment protocol were then compared to the goals and vision of the Township, as articulated by its leaders. Inconsistencies between that vision and what was "on the books" - the local zoning and ordinances- are identified in the following eleven areas:

1. Improve Traffic Circulation
2. Village Center/Mixed Use Development
3. Preservation of Rural Character
4. Open Space Preservation
5. Viewshed Protection
6. Soil Erosion and Sediment Control
7. New Construction Practices
8. Recharge Area and Wellhead Protection
9. Increase Citizen Participation
10. Enforcement of Local Ordinances
11. Knowledge Base of Municipal Officials

This document is an interim step that represents ideas for connecting and implementing the Township's vision for its future. Now that the Assessment is complete, the Association will work with Township officials to make those connections, implement any options the Township identifies and enact ordinances, policies, or best management practices to allow Montgomery Township to move even farther to the forefront of preserving its rural character, planning for its future and protecting the environment.

We wish to thank the William Penn Foundation and the Geraldine R. Dodge Foundation for their generosity in funding this project, and the Township Committee, Planning Board, Environmental Commission and Master Plan Committee for their enthusiastic responses to our Framework Questions. We would also like to acknowledge the individual input of Mayor Wilson, Caron Chess, Karen Wintress, Don Jonson, David Henry, and other interviewees for generously giving our staff the time and answers to complete the assessment.

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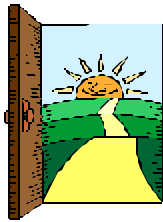
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How to Use This Report

This report outlines eleven steps that can aid Montgomery Township in achieving its vision for the future through current or updated zoning, ordinances and policies that govern land use in the Township. These steps were identified after extensive interviews, questionnaires and research. Each step was determined by comparing the goals that were identified by the Township's leaders, as well as in the Master Plan, and the current protection that exists. Both the goal and current protection are outlined for each step. Following each analysis are specific options that are designed to provide guidance to the Township and identify specific options that can be taken to reach the Township's goals. Most options are followed by a "Did You Know?" section that provides further information on the issue and an "Additional Resources" section that identifies other references and organizations that can provide support to the Township in implementing certain options.

Next Steps



This report is a necessary step, but it is only an early step in a long process as the Township moves towards its goals. We suggest that Montgomery Township prioritize the eleven steps and determine which options you are interested in implementing. The Association will then work with your officials to develop more detailed information, models and guidance to help implement the various options. The Township will not be alone in implementing your chosen options.

The Association will work by your side in your efforts to provide the citizens that reside in the Township with a sense of community, a healthy environment and a strong economy, all within a rural setting. We realize that the Township has already begun implementing some of the options listed in this report (such as a Tree Ordinance and a survey regarding the Routes 206 and 518 intersection) and we offer our assistance to the Township in completing those projects. By committing ourselves to follow through on this report and its results, the Association is achieving its mission of protecting and preserving the watershed.

Highlights of Your Town



When beginning this assessment, members of the Montgomery Township Committee, Planning Board, and Environmental Commission articulated their goals and vision for the Township by responding to our survey. We feel it is important to note the proactive measures that have been implemented within the Township and that have created the unique character that is Montgomery Township.

Good Things...

Over the years, Montgomery Township has created progressive ordinances and programs. A few examples of such tools include:

- ⌘ *Septic System Management Ordinance* that regulates the maintenance of on-site subsurface waste water disposal systems to protect the public against system failures and resultant pollution (Ord. #92-2, S1). This ordinance is one of only eight that exist statewide;
- ⌘ *Non Point Source Pollution Control Ordinance* that requires each subdivision, site plan or variance application to be accompanied by a nonpoint source pollutant loading analysis, which identifies the acreage of existing and proposed urban, residential, agricultural or forested land uses for each drainage area. Protection of existing natural areas is encouraged, as well as minimal impervious cover (Ord.01-1036); and
- ⌘ *Critical Areas Ordinance* that regulates uses within Flood Plains, Stream Corridors, and on Steep Slopes. The ordinance is presented in the form of a Critical Areas Map (that also includes Freshwater Wetlands delineations) as part of the Township's Master Plan (Ord 01-1039).
- ⌘ *Amendments to the Land Development Ordinance* to require the contiguous acreage of non-critical land to include $\frac{3}{4}$ of an acre that forms a circle, such that a reasonable building envelope rests entirely on non-critical lands.
- ⌘ *Stream Corridors Ordinance* that expanded the stream corridor dimensions to better protect water quality and riparian habitat.

Montgomery Township successfully maintains its rural and historic character through ongoing preservation strategies. Utilizing a variety of State and County resources, municipal open space trust and the recommendations of the Landmarks Commission and Open Space Committee, the Township continues to maintain its rural and historic character. To further support Montgomery's open space goals, Montgomery Friends of Open Space incorporated in 2002 and serves as Montgomery's local nonprofit organization. Montgomery's Conservation Plan lays out language for bikeways and pedestrian links and how they relate to the greenways and open space around town.

In 1999, Montgomery Township hired an assistant planner to coordinate the acquisition and management of open space. As part of the *Conservation Easement Monitoring* program, Montgomery Township hired an assistant planner to monitor and enforce conservation easements throughout the Township. Also, as a result of this assessment process and the draft report, the Township is reevaluating the enforcement policies on their ordinances and revamping language in other ordinances at the same time.

Highlights of Your Town

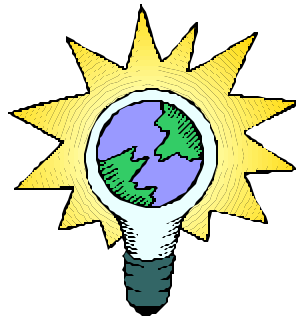
Over five years ago, the Township began developing a Geographic Information System (GIS) to manage, analyze and map a variety of data in support of the decision making process. As a result, the Township was selected by Somerset County as a premier GIS developer and was used as a model for the Countywide shared services program. Today, Montgomery has over 80 data layers and remains one of the most aggressive municipalities undertaking GIS in the state. Last year, Montgomery was selected by the US Environmental Protection Agency to employ the Smart Growth Index software.

Throughout the various stages of plan development the Township has sought the advice, input, and partnership of the aforementioned groups, their own Staff, and active citizens. These are a few examples of how Montgomery Township works as an active community.

Montgomery Township is also undergoing some major projects that, when implemented, will accomplish goals as stated in the Master Plan. Utilizing public participation aids the Township in creating plans that will benefit the public good and helps strengthen a sense of community. For example, Montgomery's Transportation Advisory Committee held four (4) public meetings to provide information and gather input on traffic and transportation solutions, and the master plan Committee held five (5) additional public planning forums and distributed a public survey to gain input on the potential rezoning of land in the vicinity of the Rte. 206/Rte. 518 intersection. Residents recommended desired land uses and amenities to recreate these crossroads as more functional and aesthetically pleasing.

Plans for the possible redevelopment of the North Princeton Development Center also came under public review to determine priority uses of the site and information gathered through this process has informed the township's vision for the site as mostly parkland with cultural, recreational, educational and civic uses that serve public wants and needs.

Finally, through developing Planned Residential Developments and acquiring open space, the Township has prevented commercial development along most of the Route 206 corridor between Belle Mead and Rocky Hill. Commercial and mixed-use development has been focused around the two concentrated areas so as to minimize the impact of sprawl and over-development along this stretch of highway. Continued efforts in this area of planning and community development will only benefit the Township more and maintain the rural character it identifies itself with.





Next Steps

STEP

1

Improve Traffic Circulation



GOALS: “1. The Township should utilize the existing roadways...

2. All roadways should be provided with the minimum improvements necessary...
3. Traffic should be diffused among a variety of alternate routes...
4. Residential lots abutting or having direct driveway access to Route 206 and other major roadways should be relatively large in size and have relatively wide frontages so as...
 - a. to lessen the number of new driveway access points,
 - b. to maintain the rural residential character of the Township, and
 - c. to protect residents from nuisances associated with the high volumes of traffic.” (Traffic Circulation Plan Element, 2002).

Respondents to our survey said that they would like new traffic circulation to accommodate the village design (see Step 2), to be bike and pedestrian friendly, to slow traffic and to create connections between businesses, housing and the environs.

CURRENT PROTECTION:

Montgomery Township has formed a Traffic Advisory Committee that is currently in the fact-finding phase for the potential rezoning of the intersection at Routes 206 and 518. The Committee has distributed a survey regarding the issue in order to get an idea of what is important to the residents. A Master Plan Committee has also held four public workshops to hear comments from those other than public officials.

According to the Land Development Ordinance the following regulations have been established:

§16-5.14a.1 *Streets*. “Local streets shall be planned so as to discourage through traffic.”

§16-5.14a.6 “Any development abutting an existing street classified as an arterial or collector shall be permitted only one (1) new street connecting with the same side of the existing street...” Collectors range from 50'-60' in width.

OPTIONS: IMPLEMENT ORDINANCES AND TRAFFIC CIRCULATION DEVICES THAT ALLOW FOR STEADY MOVEMENT WITHIN AND THROUGH THE TOWNSHIP.

Specifically, the Township should consider:

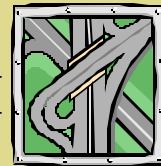
- ☞ Moving forward with studies and surveys to better understand what residents want and what would work best for the Township's traffic flow.
- ☞ Applying traffic calming measures to the major roadways to move traffic while alleviating congestion.
- ☞ Applying bicycle and pedestrian-friendly measures to major and connecting roadways to maximize movement in and around the “center”. Also, applying these measures to open space greenways will link the large scale employers located to the immediate center. (See Step 2).
- ☞ Initiating carpooling or ride share opportunities for better access to those large scale employers within the Township.
- ☞ Continue reporting on the progress of planning efforts to those in and around Montgomery Township.
- ☞ Sending a representative to the NJ Regional Traffic Forum.

Improve Traffic Circulation



Did You Know?

- ⌘ Between 1970 and 1999, the U.S. population grew by 33%. During this period, however, the U.S. Department of Transportation found that vehicle miles traveled grew disproportionately by 143%.
- ⌘ Between 1990 and 2000 Montgomery Township's population grew from 9,612 to 17,481, an increase of 7,869 people. In 1990, 133 housing units owned 2 vehicles and there were a total 5,043 workers in the Township. Of these employed people 4,132 (81.9%) of them drove to work alone. 742 of the employed people lived within 20 minutes of their workplace.
- ⌘ Sharing a ride or car pooling, even if it is done just once or twice a week, will reduce traffic congestion and pollution, and will save you money. The average driver spends about 44 cents per mile including ownership and maintenance.
- ⌘ Riding a bike is a great way to travel and it can help you and the air get into good condition. Vehicles on the road create more than 25% of all air pollution nationwide.
- ⌘ It is vital that a community's circulation system includes a variety of transportation alternatives. This has several beneficial effects. It disperses circulation, instead of concentrating it in a few key arterials or collectors. It requires smaller facilities (narrower streets, less dedicated turn lanes, less mechanical traffic control devices). It allows streets to retain a pedestrian-oriented, human scale, as opposed to the over-engineered, auto-oriented collectors and arterials of the suburbs (NJ State Plan).



Additional Resources

- ⌘ *It All Adds Up to Cleaner Air* is a unique public education and partnership-building initiative developed collaboratively by several federal agencies to help regional, state and community efforts to reduce traffic congestion and air pollution. Visit their website at <http://www.italladdsup.gov/>
- ⌘ *RideWise of Raritan Valley* is a non- profit agency that offers free services to help reduce traffic, improve air quality, and make getting to and from work less stressful. While they don't provide rides, they do help individuals and employers find healthier, money-saving alternatives to commuting like carpooling, vanpooling public transit, biking and walking. Visit them on the web at www.ridewise.org
- ⌘ The *NJ State Plan* offers suggestions on Traffic and Transportation. Since New Jersey is the most densely populated and heavily traveled state in the country, it is important to make sure that increasing traffic congestion isn't a way of life.
<http://www.state.nj.us/osp/resources/traffic.htm>
<http://www.njchoices.com/>
- ⌘ The *Tri-State Transportation Campaign* is an alliance of public interest, transit advocacy, planning and environmental organizations working to reverse deepening automobile dependence and sprawl development. www.tstc.org

STEP

2

Village Center/Mixed Use Design



GOALS: Goal and Objective No. 6 in the Master Plan and Development Regulations (2001) states that: “Between the two (2) nodes of concentrated development along Route 206, referred to as the Rocky Hill node and the Belle Mead node, the Development plan should continue to prevent the evolution of strip commercial uses along Route 206.”

Respondents to our survey also stated that they would like to see mixed use development located in the nodes. Other respondents said that they would like to see a Village Center Design for the intersection at Routes 206 and 518, while

others would like to utilize the vacant North Princeton Developmental Center site for a Mixed-Use Development. Respondents hope that this will create a place for a diversity of people, incomes, businesses, and housing.

CURRENT PROTECTION:

Montgomery Township currently has language in Section 16-6.5 *Optional Development Alternative* of its Land Development Ordinance stating that “‘Planned Residential Developments’ are permitted on tracts of land at least one hundred (100) acres in area within portions of the “R-1” Zoning District where indicated on the Zoning Map.”

OPTION: CREATE AN ORDINANCE ALLOWING FOR MIXED-USES IN A VILLAGE CENTER DESIGN.

Specifically, the Township should consider:

- ⌘ Encouraging development, redevelopment and economic growth in locations that are well situated with respect to present or anticipated public services and facilities and that seek to protect the Environs.
- ⌘ Developing, adopting and implementing design guidelines; create spatially defined, visually appealing and functionally efficient places in ways that establish an identity; design circulation systems to promote connectivity; maintain an appropriate scale in the built environment; and redesign areas of sprawl, as described in the NJ State Development and Redevelopment Plan.
- ⌘ Using physical design to both enhance the workings of natural systems and support the quality, integrity and continuity of the built environment.
- ⌘ Creating and utilizing a Neighborhood Empowerment Plan. These neighborhood-generated plans receive coordinated state agency assistance in their development and implementation through the Urban Coordinating Council, which overlaps membership with the State Planning Commission.
- ⌘ Providing a variety of transportation choices (See Step 1).

Village Center/Mixed Use Design



Did You Know?

- ⌘ State Plan Strategies recommend guiding growth to Centers and other areas identified within Endorsed Plans where infrastructure exists or is planned and where it can be provided efficiently, either with private or public dollars.
- ⌘ A traditional village ordinance should have a defined village and a rural/semi-rural edge composed of parks, heaths, greenbelts and wilderness preserves or conservancy areas. The edges of a traditional village ordinance are recognized for its environmental, aesthetic, sporting and recreational benefits.
- ⌘ The traditional village decreases the land utilized for physical development. It is spatially related to pedestrian users, compact and limited in size.
- ⌘ The traditional village has a mixed use center, various gathering places, public buildings, open areas, and a variety of residential buildings forming the edge of public and semi public spaces, all interwoven and in close proximity.
- ⌘ Civic buildings that are carefully placed reinforce the character of the traditional village ordinance. These buildings become community symbols and provide identity for places of cultural, social and religious assembly.
- ⌘ Creating a center design that is easily walkable and bikeable fosters an inter-connected hierarchy of roads, pathways, sidewalks and trails serve equitably the needs of the pedestrian, the bicycle and the automobile. A traditional village ordinance has a minimal need for motorized transport and contributes to the preservation of contiguous open spaces for scenic enjoyment, recreational use and identity.



Additional Resources

- ⌘ *Traditional Village Ordinance, Florida Keys, FL.* The Traditional Village Ordinance (TVO) is a Monroe County ordinance designed to ensure the development of land along the lines of traditional villages, hamlets and settlements. Please visit their website at <http://www.urbanism.com/paper0297.htm#ordinance> or at <http://www.urbanism.com/tvo.htm>
- ⌘ The award winning *Washington Town Center* is New Jersey's first Neo Traditional Town Center and the nation's first such community designed by the municipality. Visit the Township's website for a better view of the Town Center.
<http://www.washington-twp.org/town.htm>
- ⌘ An Ordinance to amend and supplement the Chapter 200, Land Use, Article XXX, Regulations for Business Districts, of the code of the *Township West Windsor (1999)*, by a new ROM 6 *Mixed Use Planned Development District*. To view this ordinance go to <http://www.westwindsornj.org/tcagenda022502/2001-26ord.html>.
- ⌘ The *New Jersey State Development and Redevelopment Plan (SDRP)* offers planning guidelines for all communities in the state. Please go to <http://nj.gov/osp/plan2/main.htm> for more information on the Plan and how it can aid your community.

STEP

3

Preservation of Rural Character



GOAL: A majority of respondents to the survey indicated that they want Montgomery Township to retain its rural characteristics, including its farming roots and historic nodes.

The Master Plan and Development Regulations (2001) states that within the Rural Planning Area (PA4), the vacant North Princeton Developmental Center site is a possibility for redevelopment into a Village Center design. However, “agricultural lands surrounding the developed portion of the Center are envisioned to remain in agricultural use to protect existing rural character of the environs of PA4...”

The Master Plan (2001) also states the following Farmland Preservation Goals:

1. Preserve existing farmland, woodlands and open space and protect prime agricultural lands within the Township; and
2. Encourage private and public support

and participation in the New Jersey State Farmland Preservation Program.”

CURRENT PROTECTION:

Montgomery’s 2002 Build-Out Analysis states that “vacant and agricultural land uses are dispersed throughout the municipality and exemplify both the rural nature and the tradition of farming in Montgomery”. Wooded lands are also considered part of the rural nature of the Township as a large tract of woods is located in the northwest portion of the Township. Some of these lands, both agricultural and wooded, are preserved in perpetuity and add to the rural character of Montgomery.

The Township does not have an Agricultural District zoning designation. It does, however, participate in the County’s Farmland Preservation Program and conservation easements are available.

OPTION: STRENGTHEN ORDINANCE LANGUAGE TO ENHANCE RURAL CHARACTER AND CONTRIBUTE TO FARMLAND PRESERVATION

Specifically, the Township should consider:

- ⌘ Creating an agricultural district that connects the existing preserved farmlands with the greenways that are existing, proposed, and potential.
- ⌘ Ensuring that current vacant, farmland, or wooded lots categorized as “Capable of Subdivision” are appropriately preserved to maintain a rural character.
- ⌘ Establishing a Farmland Preservation Strategy that coordinates and guides municipal policies, programs and actions so as to avoid and minimize the unnecessary and irretrievable conversion of productive agricultural land to nonagricultural uses.
- ⌘ Encouraging and educating farmers about participating in the Farmland Preservation Program, utilizing other land preservation tools, or practicing environmentally sensitive operations.

Preservation of Rural Character



Did You Know?

- ⌘ Over the past 40 years, New Jersey has lost thousands of acres of farmland to industrial, commercial and residential development. This rapid development has brought former urban/suburban dwellers to communities where land is in active agricultural production
- ⌘ The State Agriculture Development Committee (SADC) leads in the preservation of New Jersey's farmland and promotes innovative approaches to maintaining the viability of agriculture.
- ⌘ To date 635 farms and 86,720 acres throughout the state of New Jersey have been preserved.
- ⌘ Total acreage in Montgomery is 20,832 acres. Between 1986 and 1997, Montgomery has lost 2,026 acres of agriculture and has gained 1,720 acres of urban areas. The Township has also lost 98.9 acres of wetlands since 1986.
- ⌘ The SADC administers the Farmland Preservation Program, providing grants to counties, municipalities and nonprofit groups to fund the purchase of development easements on farmland; directly purchasing farms and development easements from landowners; and offering grants to landowners in the program to fund up to 50 percent of the cost of soil and water conservation projects.
- ⌘ It also administers the Right to Farm Program, oversees the Transfer of Development Rights Bank and operates the Farm Link Program, which matches farm sellers with potential buyers. The *Right to Farm Act* provides commercial farm owners or operators with certain protection from restrictive municipal ordinances and public and private nuisance actions.
- ⌘ Utilizing Conservation Design as a planning technique can aid in preserving farmland while providing for necessary housing.



Additional Resources

- ⌘ *New Jersey Department of Agriculture*, State Farmland Preservation Program helps farmers meet financial goals, obtain capital to expand existing operations; eliminate or reduce debt load; or further estate or retirement planning. <http://www.state.nj.us/agriculture/>.
- ⌘ The *American Farmland Trust* works to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. *Farming on the Edge: Farmland in the Path of Development* <http://www.farmland.org/>.
- ⌘ The *Ohio Farmland Preservation Strategy* is one that supports voluntary land-saving actions by individual farmers and landowners. <http://www.state.oh.us/agr/>
- ⌘ The *Natural Resources Conservation Service* provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. <http://www.nrcs.usda.gov>
- ⌘ *NRCS Resource Conservation and Development*. A program of the National Resources Conservation Service. <http://www.nj.nrcs.usda.gov/./rcd/rcd.html>

STEP

4

Open Space Preservation



GOAL: According to the Master Plan and Development Regulations (2001), Montgomery Township has delineated the boundaries of four (4) large generalized areas for additional potential future greenways, which are related to regional land use planning. It was intended that the identification of these areas would emphasize the importance of preserving lands within the areas of these “greenways”.

Along with the Conservation Plan’s greenway identification, the Township has also laid out a Bike/Pedestrian Corridor that coordinates with it.

Respondents to our survey stated that, while on the right track, the Township could be doing more to protect open spaces.

CURRENT PROTECTION:

The Township Land Development Ordinance states that “common open space shall be distributed throughout the development so that as many residential lots as is practicable abut and have access to the common open space.”

§16-6.5(d) *Open Space Requirements* states that in Planned Residential Developments “a minimum of 40% of the tract of land proposed for residential development shall be specifically set aside for conservation, open space, flood plain, recreation and/or other common open space.”

Montgomery Township has dedicated staff who oversees the conservation plans. The Conservation and Recreation Plan includes a Composite Open Space plan that is intended to link the Pedestrian and Bike Plan, but the language is very vague.

OPTION: ENHANCE ORDINANCE LANGUAGE TO INCLUDE PROTECTION OF CONTIGUOUS OPEN SPACE, NOT LIMITED TO CRITICAL AREAS.

Specifically the Township should consider:

- ⌘ Working with adjacent municipalities to create a comprehensive regional open space plan to help preserve ecosystems across jurisdictional lines.
- ⌘ Utilizing Critical Habitat information from DEP to determine appropriate open space preservation. Utilizing GIS for this purpose, as well.
- ⌘ Ensuring that landowners are aware and educated on the several tools for open space preservation. Utilizing the Township’s Conservation Easement language to preserve open space where appropriate and regularly monitoring easements that are put into place.
- ⌘ Connecting the Township’s Greenways Plan with the Pedestrian and Bike Plan, taking into consideration connections with commercial/industrial areas outside the town “center”.

Open Space Preservation



Did You Know?

- ⌘ The Stony Brook-Millstone Watershed Association's Characterization and Assessment of the Beden Brook subwatershed lists areas in Montgomery Township that are Critical Habitats. The majority of these habitats lie within the forested areas in the northwest portion of the Township.
- ⌘ N.J.S.A. 40:55D-28 of the MLUL empowers the Planning Board to prepare a Master Plan, ...(which) may include a conservation plan element as provided herein, for the preservation, conservation, and utilization of natural resources and present future preservation, conservation, and utilization of these resources
- ⌘ An overlay district that promotes flexibility in subdivision and site plan design can accomplish both Township goals and respect the rights of landowners to develop their property.
- ⌘ The benefits of open space design can be amplified when it is combined with other better site design techniques such as narrow streets, open channels and alternative turnarounds.
- ⌘ Green Acres serves as the real estate agent for New Jersey. They buy land directly from property owners to add to the system of state parks, forests, natural areas, and wildlife management areas.



Additional Resources

- ⌘ In *Conservation Design for Subdivisions*, Randall G. Arendt explores better ways of designing new residential developments. He presents a practical handbook for residential developers, site designers, local officials, and landowners that explains how to implement new ideas about land-use planning and environmental protection. www.greenerprospects.com
- ⌘ *Open Space Zoning: What it is and Why it Works*. Randall Arendt gives an in-depth look at open space zoning and how it can work in your town.
www.plannersweb.com
- ⌘ *Better Site Design Fact Sheet: Open Space Design*. Open space design, also known as conservation development or cluster development, is a better site design technique that concentrates dwelling units in a compact area in one portion of the development site in exchange for providing open space and natural areas elsewhere on the site. www.stormwatercenter.net
- ⌘ Acquiring Land through the *Green Acres Program* Frequently Asked Questions From Application Through Long-Term Responsibilities
<http://www.state.nj.us/dep/greenacres/faq.htm#top>
- ⌘ NJ Conservation Foundation. www.njconservation.org

STEP

5

Protection of Viewsheds



GOAL: The November 2001 report states that “The vision of the current “Conservation Plan” has been expanded to... include forested areas, scenic viewsheds and vistas, recreational resources, and environmentally sensitive lands. Therefore, the previously used “greenbelts” term has been changed to “greenways”.

CURRENT PROTECTION:

Section 16-4.2c. “No principal building shall exceed thirty-five (35) feet in height, except that churches and schools shall not exceed fifty (50) feet in height...”

Other than this language regulating building heights in the MR district, there is no language protecting viewsheds.

Respondents to our survey suggested that protecting viewsheds within the Open Space Program helps, but it is not enough.

OPTION: ADOPT A VIEWSHED PROTECTION ORDINANCE WITH SPECIFIC LANGUAGE TO HEIGHT REQUIREMENTS.

Specifically the Township might consider:

- ⌘ Setting a minimum setback between a ridgeline and the top of a structure. when viewing hills that surround the Valley.
- ⌘ Establish design review standards for the Mountain Residential zoning district.
- ⌘ Proposing an ordinance that seeks to provide standards for hillside development that minimizes the impact of buildings and grading on views of existing land forms, open space, and unique geological and landscape features that can be seen from public roads.
- ⌘ Promoting architecture and design compatible with hillside terrain that minimizes visual impacts.
- ⌘ Proposing an ordinance that prescribes the location, size, height, design and vegetative shielding for structures falling under the ordinance.



Protection of Viewsheds



Did You Know?

Scenic vistas and viewsheds are often destroyed during rapid change, especially in natural or open space settings. Identification and protection of these assets is an important component of scenic conservation.

Views are resources that cannot be recovered once they are lost. It is important that they be protected since “the eyes go up to the ridge tops” and are highly visible.

A viewshed protection ordinance is developed to “protect the scenic quality” of an area. Examples of language for this type of ordinance should include:

(a) “Maximum feasible preservation of existing topographical forms; (b) Vehicular circulation and how it relates to existing contours; and (c) Maximum preservation of existing vegetation.

*Minimal disturbance to existing topographical features and vegetation. *Minimal loss of existing vegetation and minimal earthwork to fit development into the hillside. *Roads and driveways sensitive to existing contours and minimized length and width not affecting the health, safety, and welfare of residents.”

Standards used in a design review process are often called “design guidelines.” Unlike zoning codes, which are prescriptive and specific, design guidelines are more descriptive and suggestive. Design review is *not* the imposition of one person's or one committee's personal tastes upon developers or upon the community as a whole.

View protection is a form of aesthetic-based regulation, has a clear property value basis that can also be justified on general public health and welfare grounds and as contributing to the overall quality of life in a community.



Additional Resources

- ⌘ *Scenic America* helps communities identify and map special places as a way to manage new development and conserve significant visual assets. Please visit their website at www.scenic.org.
- ⌘ *Napa County, California* proposed a viewshed protection ordinance in 2001. Controversy regarding setbacks and building heights are highlighted in an article in the St. Helena Star newspaper. Read the article at:
http://www.sthelenastar.com/8-9-01/headlines/viewshed_controversy.html
- ⌘ *Aesthetic Regulation—Legal Issues* by Bob Meinig, MRSC Legal Consultant. Please review these regulations at: <http://www.mrsc.org/mrnews/sept93.aspx#aesthetic>

STEP

6

Soil Erosion and Sediment Control



GOAL: The Master Plan and Development Regulations and Re-examination Report (2001) states that “Lands with a topographic slope fifteen percent or greater have great environmental importance with respect to erosion, sedimentation, water supply, and septic limitations... For these reasons, it is recommended that relatively low densities prevail in areas where slopes are fifteen percent or greater in grade.”

Respondents to our survey indicated that they would like to see this language connected to new construction practices and to soil erosion and sediment control measures.

CURRENT PROTECTION: Chapter 14-1 of the Land Development Ordinance cites Soil Erosion and Sediment Control language. More specifically, the ordinance states...

Section 16-6.4 *Steep Slopes* states that the purpose of designating steep slopes as “critical areas” is to prevent soil erosion and storm water runoff resulting from development of such steep slope lands. Development throughout the Township shall occur only on the portion of a lot or tract outside the steep slope area, where feasible. “Development” shall include structures, road, well and sewage disposal systems.

OPTION: ADOPT A MONITORING PROGRAM TO ENSURE SOIL EROSION MANAGEMENT AND SEDIMENT CONTROL.

Specifically, the Township should consider:

- ⌘ Enforcing the language of the soil erosion/sediment control ordinance.
- ⌘ Incorporating your local Soil Conservation Service to assist you in developing a Soil Erosion and Sediment Control Plan.
- ⌘ Ensuring that your Soil Erosion and Sediment Control Ordinance coordinates with the Plan and with the State Dept. of Agriculture’s SE/SC Act.
- ⌘ Strengthening and enforcing language in the critical habitats ordinance to address steep slopes and to ensure development does not take place on steep slopes, particularly in riparian areas.
- ⌘ Creating a monitoring plan that revisits construction (and/or residential) sites after the project is complete and includes an assessment of the developed area.

Soil Erosion/Sediment Control



Did You Know?

Soil erosion is the detachment and movement of soil particles by water, wind, ice, or gravity.

Sediment is the result of erosion. Once soil particles have detached from the surface, are transported from their site of origin and have come to rest on other ground surfaces or in bodies of water, watercourses, or wetlands, they are referred to as sediment.

Why be concerned about soil erosion and sediment control?

The State of New Jersey introduced the “**Steep Slope Protection Act**” in August of 2002. This new act, when passed, will state that “the removal of vegetative cover, the disturbance of soils ... in areas with steep slopes may cause increased surface water runoff, soil erosion, and siltation, and other undesirable or dangerous conditions or hazards, resulting in pollution... increased flooding and water-related damage, unsightly landscapes, and other threats to the public health, safety, and welfare.”

Protection of Surface Water Quality: Urban runoff and construction site erosion have been identified as significant sources of non-point source pollution.

Mitigation on Construction Sites: Construction site erosion is a significant source of sediment and other NPS pollutants. Soil erosion from a construction site without proper soil erosion and sediment control practices in place can average between 20-200 tons/acre/year--This is ten to twenty times greater than typical soil losses on agricultural lands.



Additional Resources

- ⌘ *Construction Site Soil Erosion and Sediment Control.* Soil is a valuable natural resource that is vital to the maintenance of the natural environment as we know it. Find out more at the USDA National Resources Conservation Service
<http://www.il.nrcs.usda.gov/engineer/SoilEro.html>
- ⌘ *Soil Erosion and Sediment Control Act, Chapter 251, January 1, 1976.* Policy of the legislature to provide for the conservation of the soil and soil resources of this state, and for the control and prevention of soil erosion. Find out more at
http://www.mercerscd.org/chap_251.html
- ⌘ *Enforcing Sediment Regulations in North Carolina.* Paterson, Robert G. University of Texas at Austin. One of the most glaring deficiencies in the watershed protection literature today is the lack of research on the behavioral elements that must be met to improve outcomes. Read this article at:
www.stormwatercenter.net/practice/62-Enforcing

STEP

7

New Construction Practices

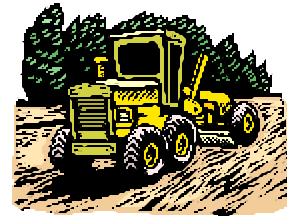


GOAL: Respondents to our survey suggested that new construction practices be considered for new development in order to curb soil erosion issues.

Montgomery Township's Reexamination Report of November 2001 states that the Somerset County Soil Conservation Service indicates soil information intended for land use planning purposes. The Township uses that information to evaluate land use alternatives and for planning site investigations prior to design and construction.

It is clear that a connection can and should be made between land use alternatives during new construction, soil conservation, and protection of critical habitats.

CURRENT PROTECTION: Section 16-6.4 (Critical Habitats) of the Land Development Ordinance states that due to the scale of a construction plan map, critical habitat information must be depicted as accurately as possible. Therefore, information prepared for approval of a subdivision, site plan, construction permit, and/or any other application which considers critical habitats must be portrayed clearly so that alternative construction practices can be considered.



OPTION: EMPHASIZE THE IMPORTANCE OF CONSIDERING ALTERNATIVE CONSTRUCTION PRACTICES, PARTICULARLY IN CRITICAL AREAS.

Specifically, the Township should consider:

- ⌘ Ensuring that Township checklists require the data necessary to make informed planning decisions (soils, hydrogeology, water quality, location of environmentally sensitive areas, etc.). Look into requiring this process.
- ⌘ Encouraging the use of pervious material, including porous pavement, green parking lots, gravel and other alternatives.
- ⌘ Along with adopting a NRI, ensure accurate mapping of Critical Habitat Areas prior to granting construction permits.
- ⌘ Customizing language of the MLUL to Montgomery Township's needs in an ordinance stating the requirements for new construction practices.
- ⌘ Requiring submission of an Environmental Impact Statement for any new large scale development, prior to granting construction permits.
- ⌘ Ensuring necessary fees for monitoring and enforcement are adopted in current ordinances.

New Construction Practices



Did You Know?

Section C.40:55D-45.2 of the NJ Municipal Land Use Law, General Development Plan Contents, states that an environmental inventory may include, but not be limited to, a general description of the probable impact of the development on the environmental attributes of the site.

Landscape pattern can "filter" the movement of species with different degrees of agility. In highly fragmented landscapes, the filtering might be much more abrupt: species could be effectively isolated on individual habitat patches. Therefore, identification of critical areas associated with abrupt changes in landscape is an important consideration in quantifying habitat pattern and the influence of habitat pattern on the ecosystem (Keitt, Urban, and Milne 1997).

Critical Slope areas often serve as habitats for threatened or endangered species of plants and wildlife, and these species may be adversely affected by inappropriate development.

The New Jersey Office of State Planning suggests that construction standards that minimize soil disturbance during construction in Critical Slope areas should be prepared and implemented by municipalities with the technical support and assistance of State agencies. Critical Slope areas that are cleared during development or forestry activities should be revegetated with native vegetation according to appropriate soil conservation and stormwater management techniques.



Additional Resources

- ⌘ Stony Brook-Millstone Watershed Association's River-Friendly Golf Course, Business and Resident Certification Programs (www.thewatershed.org).
- ⌘ *NJ Municipal Land Use Law* Section C.40:55D-45.2. General Development Plan Contents.
- ⌘ *Construction Site Soil Erosion and Sediment Control*. Soil is a valuable natural resource that is vital to the maintenance of the natural environment as we know it. Find out more at the USDA National Resources Conservation Service
<http://www.il.nrcs.usda.gov/engineer/SoilEro.html>
- ⌘ Keitt, T.H., D.L. Urban, and B.T. Milne. 1997. *Detecting critical scales in fragmented landscapes*. Conservation Ecology [online]: Available from the Internet. URL:
<http://www.consecol.org/vol1/iss1/art4>

STEP

8

Wellhead Protection and Aquifer Recharge



GOAL: While measures such as the Non-Point Source Pollution control ordinance and downzoning to reduce impervious cover have proved to be effective, groundwater quality still remains a concern throughout the Township. Specifically, respondents to the survey requested that more be done in regard to infiltration and aquifer recharge.

According to the November 2001 Periodic Reexamination Report, “The overall goal (for water quantity and quality) is to estimate the average lot size needed to provide enough recharge to dilute the nitrates to acceptable standards.”

Currently, the majority of the township has restricted soil suitability for septic

filter fields. This is an issue that needs to be monitored for groundwater contamination.

Goal and Objective No. 3 states that:

(b.) Underground potable water supplies need to be safeguarded against septic effluent discharges and should be considered in establishing residential density and intensity.

(c.) Groundwater resources should be considered for density and intensity of development commensurate with the capacities of the underlying aquifers to provide an adequate water supply.

CURRENT PROTECTION:

There is no current protection in ordinance language for wellhead or aquifer recharge areas.

OPTION: ADOPT ORDINANCE LANGUAGE THAT SETS MINIMUM STANDARDS FOR WELLHEAD PROTECTION AND AQUIFER RECHARGE AREAS.

Specifically, the township should consider:

- ⌘ Developing a “Wellhead and Aquifer Recharge Protection Plan” that focuses on the prevention of discharges of hazardous substances and toxic wastes and includes a Wellhead Protection Map that identifies wellhead locations.
- ⌘ Creating a Wellhead and Aquifer Recharge Protection Ordinance that meets local concerns or demands and is in accordance with the protection plan.
- ⌘ Including appropriate language for Wellhead and Aquifer Recharge areas into the Critical Areas section of the Land Development Ordinance.
- ⌘ Creating a Wellhead Protection Overlay Zone to accompany ordinance language where in the event of a conflict with the requirement of the underlying zone, the provisions of the WPO Zone shall supersede.
- ⌘ Applying best management practices to wellhead and aquifer protection areas while a model ordinance is in the works.
- ⌘ Distributing information to residents in order to educate them on best management practices in the home.



Wellhead Protection/Aquifer Recharge



Did You Know?

Best Management Practices like Bioretention Basins provide maximized infiltration and are more aesthetically pleasing than the typical dry detention basins. This method of groundwater recharge has been implemented on various sites throughout the Township.

Hopewell Township is transected by at least one major regional fault, the Hopewell Fault. This fault, located in the northern portion of the Township, separates the older Stockton Formation from the younger Passaic Formation. This fault recharges twice the amount of water than other areas. Montgomery Township should locate sites on the fault that lie within the Township boundaries and plan proactive strategies to protecting this resource.

Wellhead protection is a preventive program designed to protect public water supply wells. The goal of wellhead protection is to prevent contaminants from entering public water supply wells by managing the land that contributes water to the wells.

Public wells are divided into the following categories and are regulated under DEP regulations:

A **Public Non-Community Well (PNCW)** is divided into two categories. A **Non-Transient PNCW** is a well that supplies a public water system and that regularly serves at least 25 of the same persons or 15 connections for more than 6 months in any given calendar year. A **Transient PNCW** serves more than 25 different individuals a day and operates more than 60 days per year.

A **Public Community Water Supply** is a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.



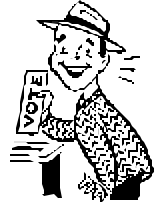
Additional Resources

- ∞ The Township of Stafford, New Jersey gives an example of a *Wellhead Protection Overlay Zone*. The Stony Brook-Millstone Watershed Association has a copy of this ordinance language. Please call **609.737.3735** for more information.
- ∞ The Watershed also has a copy of the *New Jersey Highlands Wellhead Protection Project* which includes a model ordinance for Wellhead Protection Areas and Drinking Water Aquifer Protection. Please call **609.737.3735** for more information.
- ∞ *Evaluation of Groundwater Resources of Hopewell Township, Mercer County, New Jersey*. M2 Associates, Inc. Available at the Stony Brook-Millstone Watershed Association.

STEP

9

Increase Citizen Participation



GOAL: Overall, respondents to our survey said that they feel the community has a “connection to its history” and that it is an environmentally informed and active public. However, another common response was that there needs to be more environmental education and citizen participation. Specifically, respondents mentioned the possibility of incorporating surveys, newsletter, charettes, and a more open door policy to increase citizen participation.

CURRENT EFFORTS:

The township holds public meetings regarding issues of interest to residents. Residents are encouraged to attend meetings in order to become more educated and to voice opinions on the subject matter. Residents are also encouraged to offer positive input to add constructive criticism.

Recently the Township’s Master Plan Committee held a series of four public forums to gather ideas and feedback about the future of the commercial and residential areas near the intersection of Routes 518 and 206.

OPTION: CREATE EVALUATION MATERIALS TO MEASURE THE SUCCESS OF PUBLIC MEETINGS.

Specifically, the Township might consider:

- ⌘ Utilizing your Township website to notify residents about issues or events that may be of interest.
- ⌘ Posting op-ed pieces written by Committee people in order to gain the public’s interest in the decision making process.
- ⌘ Holding public meetings and creating a survey or evaluation form for residents to complete at the end of each meeting.
- ⌘ Evaluating the success of the meetings by gauging what is learned and how residents will apply the knowledge in their own jobs or communities.
- ⌘ Providing residents with a summary of the responses in order to expand on the interest gained at the public meetings.
- ⌘ Providing sufficient notice of meetings to increase awareness and participation.
- ⌘ Encouraging nonformal access to information on, and opportunities to learn and make informed decisions about, an issue as it relates to citizens’ personal work and community lives.



Increasing Citizen Participation



Did You Know?

Conducting public meetings and obtaining public comment will give citizens a sense of ownership within their community. They will participate more and show more of an interest, in general, if their opinions are heard and taken into account.

Empowering community members to make informed decisions based upon the best available information will result in a commitment to a future that reflects the will of the people and provides a unified focus for all municipal activities.

Education programs sponsored by museums, zoos, nature centers, and 4-H clubs encourage lifelong learning about issues so that individuals can make well-informed decisions.

Raising public awareness of and support for community goals and conveying information on indicators for these goals will encourage residents to apply practices towards these goals into their daily lives.

Partnerships extending throughout communities and levels of government will encourage a support for community decisions, processes, and assessments.

"All power is inherent in the people." --Thomas Jefferson to John Cartwright, 1824.



Additional Resources

- ⌘ North Hampton, New Hampshire conducted a pilot project called *Sustainable Development in the Little River Watershed*. This document gives a glimpse of the citizen participation involved in the visioning process. Please contact the Stony Brook-Millstone Watershed Association for more information. **609.737.3735.**
- ⌘ *Public Linkage, Dialogue, and Education: Task Force Report*. This document, distributed by the President's Council on Sustainable Development, provides sufficient case studies and results from projects throughout the country. Focuses mostly on sustainable development, but citizen participation efforts are well laid out and assessed. This document is available at the Stony Brook-Millstone Watershed Association.

STEP

10

Enforcement of Local Ordinances



GOAL: Respondents to our survey commented that they felt there was a lack of enforcement of certain ordinances in the Township. For instance, they felt that language could be strengthened to ensure it would be upheld in court if ever challenged. They also stated that laws regarding transportation and traffic “have no teeth”.

Municipalities need to use their powers to ensure preservation of their local assets. One solution might involve hiring a professional to review ordinances and to educate officials about options for effective ordinances.

CURRENT PROTECTION:

A governing body in New Jersey has the legislative power to pass ordinances

governing issues such as land use and police enforcement. It can also pass land use ordinances to set standards for development and it has the authority to hire personnel to assure the ordinances are enforced.

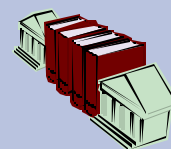
Section 16-10.3 *Enforcement*. States that a construction official and zoning officer shall administer and enforce provisions of the ordinance. A record of applications, permits (granted or denied), conditions involved, and any other data shall be kept on file as part of the Township public records. Should an owner be in violation of any part of the ordinance, the official in charge shall facilitate a remedial action.

Language for enforcement could be supported by mandating applicants to obtain the appropriate permits before their plans are approved.

OPTION: ENFORCE ORDINANCES THROUGH MONITORING AND EDUCATION.

Specifically, the Township might consider:

- ⌘ Exerting police powers to create strong, but fair ordinances that will hold up in court, if challenged.
- ⌘ Ensure that ordinance language is strengthened by implementation strategies and required monitoring.
- ⌘ Hiring or appointing personnel to act as an enforcement officer whose main focus is to monitor actions that may be questioned by the township.
- ⌘ Establishing penalties for violations of an ordinance.
- ⌘ Making information regarding violations and penalties available to the public in order to ensure a clear understanding of repercussions.
- ⌘ Educating residents on alternative actions to avoid violations which could lead to penalties.



Enforcement of Ordinances



Did You Know?

New Jersey is known as a strong “home rule” state. The 1917 Home Rule Act was later supplemented by the Optional Municipal Charter Law, which provided for various forms of self-governance while restating to future interpreters and judges the broad police powers jurisdiction of municipal government.

Municipalities may legislate more restrictive standards and controls than are imposed at the state level.

Ordinances are created to protect citizens’ health and well-being and to maintain a certain quality of life. Enforcement of these ordinances relies on the commitment of the municipal officials to uphold the standards that they have established.



Additional Resources

- ⌘ *The Environmental Manual for Municipal Officials.* This document gives overviews on municipal land use and environmental law, case studies and case law, and is available through the Association of New Jersey Environmental Commissions.
www.anjec.org
- ⌘ *Municipal Tools for Environmental Protection.* This document provides options for protecting environmental resources in a municipality. It is available through ANJEC.
www.anjec.org
- ⌘ *Zoning Ordinance Enforcement.* Long Hill Township, New Jersey. A Zoning Enforcement Officer inspects properties where non-permitted or prohibited uses are suspected, and will issue an order or a citation as appropriate to enforce the law. Any resident who suspects a non-permitted or prohibited use should contact the Zoning Enforcement Officer, and file a Complaint. More information on this type of enforcement can be found at 908-647-8000 or at:
<http://www.longhillnj.org/lht/zonenfor.htm>

STEP

11

Knowledge Base of Municipal Officials and Staff



GOAL: Respondents to our survey stated concerns that there is a lack of cohesiveness when considering issues in the Township. They also felt that the Township needs to hold to its decisions and its word.

There was also a consensus that the professionals employed by the Township are knowledgeable about environmental issues and provide valuable consultation.

CURRENT PROTECTION: In understanding the local decisions are made through township officials and staff, it is imperative to ensure municipal officials and staff are knowledgeable about environmental issues, as well as other township issues.



OPTION: ENCOURAGE TRAINING AND SITE WALKS FOR STAFF AND COMMISSION MEMBERS.

Specifically, the Township should consider:

- ⌘ Encouraging and supporting officials and board and commission members to obtain education relevant to their duties (beyond ANJEC trainings).
- ⌘ Encouraging the EC to conduct more public education campaigns.
- ⌘ Utilizing local organizations for hands-on trainings.
- ⌘ Encouraging site walks by the planning board and environmental commission.
- ⌘ Keeping Township staff members aware of documents that are updated and those that need updating.

Educated Municipal Officials