

Open Space Acquisition and Stewardship Plan

Related to Water Resource Management

SEPTEMBER 22 2021

Prepared by
Morris County Municipal Utilities Authority

Black-eyed Susan's (*Rudbeckia hirta*)
growing in the Alamatong Wellfield



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Wild Bergamot (*Monarda fistulosa*)
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INTRODUCTION

The Morris County Municipal Utilities Authority's (MCMUA) Open Space Acquisition and Stewardship Plan provides background and information on the MCMUA's past and present open space acquisitions. The plan also establishes the process to be used by the MCMUA for identifying and evaluating future open space acquisitions. This plan also focuses on the care and stewardship of the MCMUA's open space properties for which the MCMUA has contributed funding towards. In some cases, the MCMUA manages their acquisitions as they relate to water resource implications focusing on the protection of our public water supply.

The MCMUA receives a portion of the Morris County Open Space Trust Fund contributions to purchase open space acquisitions that preserve water quality and contribute to groundwater recharge. As of the date of this publication, the MCMUA has purchased approximately 5,000 acres and has contributed approximately 44 million dollars for protecting Morris County's public water supply. In addition to the purchasing of open space, the MCMUA also serves as a steward of these properties to preserve and improve their environmental benefits. Examples include both MCMUA's wellfields (Alamatong and Flanders) in addition to several smaller parcels throughout the County of Morris. Responsibilities of the MCMUA staff include removing nuisance species, re-establishing native plant communities, and inspections.

The MCMUA will use this Plan as a guide and reference when evaluating open space property acquisition proposals brought forth by outside funding partners (municipal, county, state, and non-profit, etc.) as well as open space properties the MCMUA is interested in purchasing. Once the property is acquired as open space either solely with MCMUA funding or through a partnership, the land is restricted from future development and preserved for passive recreational activities only. The protection of community public water supplies shall be the highest consideration when evaluating and acquiring properties for future preservation.

I. WATER RESOURCE CONSERVATION

A. MCMUA Water Resources and Delivery System

The MCMUA provides water to municipal and commercial water systems serving Morris County. The MCMUA uses a system of wells, pumps, booster stations, tanks, and pipelines to provide water to the following water systems: Denville Township, Jefferson Township, Mine Hill Township, Mount Arlington Borough, N.J. American Water Company, Parsippany-Troy Hills Township, Randolph Township, Roxbury Township, Wharton Borough, and Southeast Morris County M.U.A. serving a population of over 41,000 people which is approximately 12% of Morris County residents at the time of this publication.

Public drinking water is pumped from eight wells drilled into deep underground aquifers in two well fields. Both the Alamatong and Flanders Valley Well Fields are fed by the Jacksonburg Limestone, Kittatinny Supergroup, and Hardyston Quarzite Aquifer. Rain and storm water runoff infiltrate the soil and seep down into the aquifer.

The area throughout the Flanders Valley well field property and in the surrounding open space property has hydric soil. Hydric soil is soil that is formed under conditions of saturation, flooding, or ponding during the growing season to develop anaerobic conditions in the upper part. Hydric soil supports the formation of wetlands and supports the growth of important wetland plant species. Groundwater discharges to become surface water through wetlands. Wetlands also filter and absorb precipitation to replenish groundwater. A tributary of the Drake's Brook is located on the open space property surrounding the Flanders Valley Wellfield. Drake's Brook is a tributary to the Lamington/Black River which is considered a category 1 waterway by NJDEP. Category 1 waterways are subject to more stringent water quality standards because of their ecological importance and pristine water quality.

The area throughout the Alamatong Well Field and in the surrounding open space also contains hydric soil that is of great importance to the MCMUA's wells. The Succasunna Brook runs through the surrounding open space property. The Succasunna Brook is also a tributary to the Lamington/Black River.

The Highlands Region is a significant source of drinking water for New Jersey residents. The Highlands region yields approximately 379 million gallons of water daily. 275,609 acres of Morris County are located within what is known as the Highlands Region and the Highlands Planning Area.

As a water provider, MCMUA recognizes the importance of protecting water quality and quantity. Initially, the MCMUA used its Open Space Trust Fund (OSTF) to acquire properties located within the Wellhead Protection Area (WHPA) and headwaters of its two wellfields. The MCMUA used the New

Jersey Geological and Water Survey (NJGS) mapping data showing the 2-year, 5-year, and 12-year groundwater velocities and headwaters information to identify target properties.

For future open space acquisitions, properties must serve as a water resource conservation enhancement to MCMUA's water systems or Morris County's community well systems.

B. Lands that Protect the Quality and Quantity of Drinking Water Supplies

The MCMUA prioritizes land with the following water conservation characteristics and will use OSTF grants to protect these lands.

- Properties located in wellhead protection and floodplain areas. These spaces focus on the groundwater recharge of aquifers through infiltration as well as nutrient and impurity filtering from runoff, the processing organic wastes, and moderating temperature fluctuations.
- Areas containing headwaters. Headwaters are ecologically sensitive and control downstream flow. Protecting headwater streams is critical for water quality.
- Ecologically sensitive areas. These areas can be critical for animal and plant species that are considered at risk. These ecologically sensitive areas provide water, food, spawning, and space for these species. Lands with vernal pools are an example. Plant and animals serve as indicators of water health.
- Wetland areas that are covered or not covered under the [Freshwater Wetlands Protection Act](#). Wetlands absorb storm water reducing flooding, create unique habitats for animals and plants, and fill groundwater supplies.
- Serve as riparian buffers to surface waters, recharge areas, and reservoirs. Many drinking water providers in Morris County obtain their water from surface water resources. Maintenance of riparian buffers along pristine waterways (FW1, FW2 & Category 1) is especially critical to retaining water quality.

II. MCMUA's OPEN SPACE ACQUISITION PROGRAM

A. History of MCMUA Open Space Acquisition

On September 24, 1958, the Morris County Board of Chosen Freeholders adopted a resolution creating the MCMUA for the primary purpose of developing and distributing an adequate supply of water for the public and private use of the county's inhabitants.

In December 1992, the Board of Chosen Freeholders established the Morris County Open Space and Farmland Preservation Trust Fund (OSTF), and a portion of the monies was made available to the MCMUA for land acquisition to conserve and protect water resources. The MCMUA's first project was completed in 1995 and by 2004, many of the open space properties near the MCMUA's existing wellfields have been acquired.

B. Goals of MCMUA's Open Space Acquisition and Stewardship Plan

The goals of the MCMUA's Open Space Acquisition and Stewardship Plan are to:

- Establish criteria for acquiring new open space properties
- Set guidelines for deciding what types of properties the MCMUA will allocate money to from the Morris County Open Space and Farmland Preservation Trust Fund when proposals are brought forth by outside funding partners
- Provide for proper stewardship of the property directly acquired by the MCMUA that is complementary with water resource conservation objectives. For lands in which the MCMUA partnered and the partner retains stewardship responsibility, develop a program to ensure such lands are being preserved following MCMUA requirements incorporated in the partnership agreements and associated deed restrictions.

C. Open Space Trust Fund (OSTF) Grant Program

The MCMUA grant funding allocation varies annually based on the allocation decided by the Morris County Commissioners. The MCMUA is eligible to receive a maximum of 5% of the total monies available each year. It is important to note that the County governing body funds the program based on the perceived need of the MCMUA's allocation. Therefore, funding is not always at the full 5% and in recent years the MCMUA's portion of the OSTF allocation has not been funded at the maximum 5%. This plan will help define the water conservation needs remaining in Morris County.

D. Open Space Acquisitions

As of 2021, the MCMUA has been involved in 222 property acquisition projects across Morris County's municipalities. These projects total over 5,000 acres, using approximately 44 million dollars

from the open space fund. Included in these amounts are purchased properties immediately around MCMUA's wellfields and funding contributions to projects with the Morris County Park Commission to help expand County parklands with valuable water resources. Other projects include funding to municipalities and non-profit conservancies.

Areas of high priority for preservation are identified as those where water recharge areas overlap wellhead protection areas. These significant areas are defined as those having a high recharge value per year. The MCMUA also considers a variety of environmental factors when purchasing a property such as property size, the presence of wetlands, hydrology, threatened and endangered species, vegetation type, proximity to other open space acquisitions, and previous site land-use types.

III. FUTURE OPEN SPACE ACQUISITIONS

A. Criteria for Acquiring Future MCMUA Open Space Properties

Properties of importance to protecting the drinking water quality and quantity of Morris County will have one or more of the characteristics listed in section IB. WATER RESOURCE CONSERVATION, paragraph B “Lands that Protect the Quality and Quantity of Drinking Water Supplies.” Unpreserved land still exists which may be important to the water resources of Morris County. To identify these critical properties, the MCMUA will rely heavily on a variety of resources such as its internal resources, state and federal information as well as other external mapping capabilities. Additionally, the MCMUA actively works with the Morris County GIS department to provide current mapping layers from which to develop and maintain acquisition models from which the MCMUA can identify properties. Utilizing the results of the acquisition identification mapping and modeling, the MCMUA will proactively work toward acquiring desired properties. In addition to other resources, the NJ’s GeoWeb and the NJ Highlands Council Interactive Map will also be used to identify critical water resource lands. Finally, the MCMUA will work with the Morris County Open Space Trust Fund Committee (OSTFC) to help identify potential properties to acquire and coordinate such acquisitions with the OSTFC for the best use of Morris County’s trust fund dollars.

B. Criteria for Evaluating OSTF Grant Program Requests

The MCMUA has partnered with The County of Morris, The Morris County Park Commission, governmental agencies, and nonprofit conservancies in preserving important watershed lands. These partners have used a variety of funding sources to purchase open space parcels, including County OSTF grants, municipal open space tax funds, non-profit funding, State Green Acres, and others. When MCMUA contributes funding to an open space acquisition, a deed restriction is required be included in Conservation Partnership Agreements (CPAs) as well as subsequent deeds associated with the land.

The restriction included in the agreement states:

“The grantee further agrees that they will not accept a title to the protected property unless a provision is included in the deed in the following form:

The lands being conveyed herein are being acquired by grantee in part with funds from the Morris County Municipal Utilities Authority share of the Morris County Open Space Trust Fund, and the title is subject to the following use restrictions:

The water quality, natural, scenic and open space character of the Protected Property will be retained in perpetuity and no use, activity, or development inconsistent with this restriction shall be permitted, with the exception of water infrastructure and non-commercial passive recreational activities such as unpaved hiking paths or trails, and in limited instances, unpaved biking, cross-country skiing trails and

community gardening. Motorized vehicles shall not be permitted on the protected property, except for the use of motorized vehicles by an authorized governmental entity having jurisdiction, to provide police protection and emergency services on, in, and around the protected property; or for stewardship or management purposes as necessary or desired.”

The MCMUA will consider requests for funding from any person or entity that meets the following criteria:

- Any of the 39 municipalities in the County of Morris.
- County of Morris and/or Morris County Park Commission
- Any residential and/or commercial property owner.
- Qualified land preservation charitable conservancies/not-for-profit organizations.

Properties given the highest consideration for acquisition through the OSTF grant program will be those which enhance the protection of the MCMUA’s water resources in its public drinking water capacity. However, projects may also be considered if they identify a water resource conservation enhancement and provide protection for the County of Morris’ water resources.

Eligible Expenses:

- The acquisition cost of the property.
 - Under no circumstances shall the sum of all acquired County funding exceed the appraised value.

Match Requirement:

- While there is no match requirement for the program, projects that are accompanied by funding partners will be looked upon more favorably than requests for full funding from the MCMUA.

Length of Time to Close or Complete the Project:

- The applicant will have 12 months to close on the acquisition of the specified project with the possibility of (2) 6-month grant extensions with the consensus of the MCMUA Board.

Grant Cycle:

- The program has a rolling admission policy.

Application Requirements

- Letter of Intent – property ownership verification and grant request estimate. A pre-application meeting is not required but is suggested.
- Full Morris County Open Space Trust Fund Application
 - The application must be first submitted to the Morris County Office of Planning and Preservation who will then send it to the MCMUA for funding approval.
 - The application must convey a full understanding of the project and associated costs: with a detailed cost estimate form required.

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- Must include a current appraisal along with a detailed description of the integral benefits of purchasing the property concerning the protection of water resources.
 - MCMUA application- See Appendix 5
 - Question and Answer session with MCMUA Review Committee who will prepare a recommendation for consideration by the MCMUA Board. The MCMUA Board will adopt a resolution regarding the funding of the project following the provision of recommendation by the Review Committee.

MCMUA Application Review Committee:

- The Review Committee is comprised of the MCMUA Board Members and MCMUA staff to evaluate applications.
- The Review Committee shall make a recommendation to the MCMUA Board which will form a resolution needed to authorize the property purchase amount.
- The Morris County Board of County Commissioners ultimately approve all properties that are purchased through the MCMUA program with the adoption of their resolution.

IV. LAND STEWARDSHIP MONITORING

Since 1958, the MCMUA has been involved in a variety of water resource and open space acquisitions. In general, MCMUA acquired properties can be placed into one of two categories:

- Where the MCMUA is the property owner and assumes land stewardship responsibilities.
- The MCMUA is not the property owner nor land steward yet contributed funds to the acquisition of the property.

The category to which the property applies will ultimately dictate the type of monitoring required. As the MCMUA continues its involvement with open space acquisitions, it acknowledges the importance of open space monitoring. The MCMUA has identified a Protocol for Preserved Open Space Monitoring and Stewardship as defined in section A.

All open space properties the MCMUA has funded previously and will fund in the future, have a deed restriction associated with them. Through the use of deed restrictions, properties are reserved for passive outdoor recreation, educational purposes, and provide suitable habitat for indigenous flora and fauna. Examples of wrongful uses of the preserved property that have a deed restriction associated include illegal dumping, adjacent property encroachment, evidence of active recreational activities, and all-terrain vehicle (ATV) use. Any activity violating the terms of the deed restriction is considered a wrongful use. This Protocol for Preserved Open Space Monitoring and Stewardship outlines the information needed from a site visit to accurately determine if the property is being managed following the restrictions set forth within the easement documents.

A. Protocol for Monitoring MCMUA Open Space Properties

a. Baseline Assessment

Baseline assessment data should be collected during the property's closing or as close to the closing date as possible. The baseline assessment is extremely important to establish the existing conditions of a property at the time of closing. The baseline assessment data will ultimately be referred to determine violations of the deed restriction. Properties where baseline assessments have not yet been performed, will require case-by-case analysis to determine if existing conditions of the property at the time of closing. A baseline assessment may also be performed before the property's closing if access to the property is permitted by the current owner.

b. Monitoring Schedule

Once the initial baseline assessment data has been recorded, monitoring of the property will regularly take place. The purpose of monitoring is to ensure that the land stewardship and management are consistent with the MCMUA's deed restriction. After a property's initial baseline assessment and following its acquisition, the property shall be enrolled in an assessment at least once every three years. However, the property can be monitored more or less frequently at the discretion of the MCMUA. It is

recommended that monitoring be performed during varying seasons but monitoring can be performed any time of the year. This can be in the winter months for enhanced visibility, in the spring for the monitoring of emergent plant growth, or even in the fall to track animal migration patterns. Monitoring of the property does not necessarily have to be performed by MCMUA staff if the property is already being monitored by other agencies (i.e., land trust, municipal representatives, etc.). In addition to this, the MCMUA also solicits for interns to perform monitoring of open space properties (See Appendices 2 and 3). If the property is not monitored by the MCMUA, the organization performing the monitoring must submit a report of their field observations to the MCMUA every two years.

c. Inspections

During a field visit, as much of the property should be visually inspected as possible. Aerial maps of the property should be evaluated to identify specific areas of interest before the inspection. It is important to observe as much of a property's boundary as possible while paying attention to areas that have a high potential for violations such as property lines, stream corridors, known problem areas, high activity areas, roadsides, and trail systems. During the site visit, photographs should be collected throughout the property for documentation purposes. During the inspection in addition to documenting adherence to the deed restriction, the property's natural resources should also be noted which can later be incorporated into a management plan for the property.

Background information such as property name, location, block, lot, acreage, funding information, closing date, accessibility, etc. should be reviewed before the field visit. The relevant information will provide the inspector with the appropriate background knowledge about the property. In addition to the background information, the following parameters should be collected during the property visit: date, time, weather conditions, inspector's name, previous inspection date, signs of unpermitted land uses or adjacent property encroachment, photographs, flora, fauna, hydrology, geology, existing features, evidence of illegal dumping, existing land use, existing structures, and any other pertinent information. An *Open Space Land Monitoring Reporting Form* (listed in the Appendix section as Appendix 1) should be used during inspections to assist in recording proper parameters. Reports from managers of funded properties should also include this same information and submit the inspection report to the MCMUA. If MCMUA personnel inspects a funded property, the land manager will be notified of the visit.

d. Compliance

During the time of inspection, if the deed restriction appears to be in violation, the MCMUA will document the area using a variety of photographs, notes, visual observations, and field measurements. Only if safe conditions exist will the MCMUA continue monitoring the remaining portion(s) of the property. Immediately after returning to the office, proper management, property owner(s), and/or authorities should be contacted to investigate the present issue. After notifying all appropriate parties, the MCMUA will draft an observation of violation (OOV) and submit it to the alleged violating party in writing for notification and proper action. The OOV will identify the property name, location, block, lot,

and a detailed description of the violation; accompanied by any photographs collected. The MCMUA will follow up with the OOV as necessary, to make certain the violation is being addressed to comply with the property's closing documents and to the satisfaction of the MCMUA and any other funding partner(s) associated with the preservation of the property. Should the need arise that a conflict cannot be resolved the appropriate County of Morris personnel will pursue enforcement action on the violating entity.

e. Reporting

Observations made during all site visit(s) will be recorded on the *Open Space Monitoring Reporting Form* with information entered into a monitoring database. Once all field visits are complete (anticipated for mid to late winter), reporting forms will be compiled into an Annual Open Space Monitoring Report. The Annual Open Space Monitoring Report will serve the MCMUA as a reference document. This report will be made available to the Board once a year or by request.

f. Stewardship Policies of MCMUA Owned Open Space Properties

Creating and maintaining stewardship policies and guidelines for MCMUA Open Space Properties will ensure the protection of the natural environment and drinking water supplies in Morris County. Below are stewardship policies in place on MCMUA Open Space properties.

i. Hunting Policy

The MCMUA and the Morris County Park Commission work together to establish the rules and regulations set for a White-tailed Deer Management Plan on the Alamatong Wellfield. Hunting of white-tailed deer is allowed on the Alamatong Wellfield property during the designated hunting season with some limitations to ensure the safety of those present in and around the wellfield. The Park Commission manages the deer hunting program for the MUA and more information on the program can be found on their webpage linked [HERE](#).

ii. Off-road Vehicle Use Policy

The MCMUA adheres to the following policy which states:

- All motorized off-road vehicles, including All-Terrain Vehicles (ATVs), are strictly prohibited from all Morris County Park Commission property which manages the trails on behalf of the MCMUA.
- The driving of any vehicle on unauthorized roads is prohibited.

iii. Illegal Dumping

The MCMUA follows the NJDEP protocol for reporting illegal dumping.

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- To report incidents of illegal dumping or environmental abuse please contact the New Jersey Department of Environmental Protection (NJDEP) Action Hotline at 1-877-WARNDEP (1-877-927-6337).

iv. Littering

- The MCMUA adheres to municipal ordinances and will report incidents of littering to local law enforcement.
- If needed, signage will be utilized to notify the public of these policies.

v. Invasive Species

- Invasive species will be eradicated through best management practices if necessary.
- Open space will be monitored and signs of invasive plant species will be reported to MCMUA for further guidance on how to best rectify the issue.

vi. Water Monitoring

- Water quality will be monitored by the Watershed Ambassador, MCMUA employee, and or their designated agent on MCMUA Open Space properties. A Habitat Assessment and a Macroinvertebrate Assessment will be performed. Performing such an assessment will be done as deemed appropriate.
- Under the County Environmental Health Act (CEHA) the NJDEP or its designated agent performs ambient stream monitoring activities to assess for basic stream health. This data can be used in conjunction with or in lieu of a full assessment to gauge the health of waterways in the County of Morris.

vii. Inventory of Flora and Fauna

Properties will be monitored for native and invasive flora and fauna and recorded using apps such as i-Naturalist and eBird. These apps can be accessible by the public for which the MCMUA serves as the administrator.

B. Protocol for Monitoring MCMUA Partner Properties

a. Baseline Assessment

MCMUA Partner Properties will follow the same protocol for the baseline assessment as the MCMUA owned properties in section IV.

b. Monitoring Schedule

MCMUA Partner Properties will be monitored every five years by the partnership organization and/or the MCMUA.

c. Inspection

MCMUA Partner Properties will follow the same protocol for inspections as the MCMUA owned properties.

d. Compliance

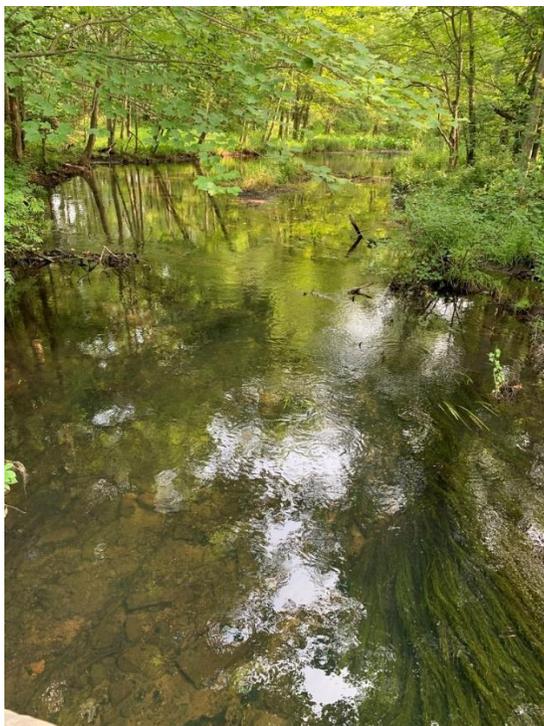
MCMUA Partner Properties must adhere to the deed restriction placed on the property through the acceptance of MCMUA open space funding. Violations will be handled on a case by case basis.

e. Reporting

Observations on MCMUA Partner Properties will be recorded on the Open Space Monitoring Reporting form, submitted to the MCMUA, and entered into the monitoring database.

V. CONCLUSION

One of the MCMUA's responsibilities is to be a good steward of its watershed properties. The open space trust was created with overwhelming support to protect lands that ensure both safe and sustained drinking water supply for the population for County of Morris. Acquiring and managing lands to protect drinking water resources is a responsibility the MCMUA accepts and will strive to maintain. This plan defines activities to ensure that the water resource values of these properties are retained over time.



The Succasunna Brook running under Righter Road at the Alamatong Wellfield Open Space Property

Glossary

Aquifer: An underground layer of rock that holds groundwater. Aquifers provide water to wells. Aquifers are often categorized according to the type of rock and sediments of which they are composed.

Baseline Assessment: Provides information on the situation the campaign aims to change. It provides a critical reference point for assessing changes and impact, as it establishes a basis for comparing the situation before and after an intervention, and for making inferences as to the effectiveness of the campaign.

C1: Category One Waters means those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (i), for purposes of implementing the antidegradation policies, set forth at N.J.A.C. 7:9B-1.5(d), for protection from measurable changes in water quality based on exceptional ecological significance, exceptional recreational significance, exceptional water supply significance or significant fisheries resource(s) to protection their aesthetic value (color, clarity, scenic setting) and ecological integrity (habitat, water quality, and biological functions).

Deed Restriction: Place conditions on the deed to a property setting out certain limits or acceptable uses.

EPA: Means Environmental Protection Agency

Floodplains: A floodplain is a “generally flat area of land next to a river or stream. It stretches from the banks of the river to the outer edges of the valley.” Floodplains are made up of two parts, the floodway which is the main channel of the waterway, and the flood fringe which “extends from the outer banks of the floodway to the bluff lines of a river valley.” Floodplains develop through two processes: erosion and aggradation. Erosion is the process where the stream bank is worn away by the movement of water while aggradation is the process where the floodway deposits sediment.

Floodplains are significant to both water quantity and quality. Floodplains act as natural filters removing sediment and nutrients which can degrade water quality from runoff before it enters a waterway. Floodplains along the riparian zone help to mitigate flooding downstream by providing a river more room to rise. Floodplains also help to recharge an aquifer by slowing the flow of water allowing it more time to seep into the ground.

FW: This means the general surface water classification applied to freshwaters.

FW1: This means those freshwaters, as designated by the N.J.A.C. 7:9 B-1.15(j), that are maintained in their natural state of quality (set aside for posterity) and not subjected to any man-made wastewater discharges or increases in runoff from anthropogenic activities. These waters are set aside for posterity because of their clarity, color, scenic setting, other characteristics of aesthetic value, unique ecological

significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s).

FW2: This means the general surface water classification applied those freshwaters that are not designated as FW1 or Pinelands Waters.

Groundwater Recharge: A hydrologic process where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer.

Groundwater Velocity: The movement and time it takes for water to travel and seep through soil and rock underground.

Headwaters: The headwaters of a waterway are the source of the river or where the river begins. Headwaters can be “fed by springs underground or marshy areas fed by mountain snows.” Headwaters are considered first and second-order streams.

MCMUA: Morris County Municipal Utilities Authority

N.J.A.C.: New Jersey Administrative Code

NJDEP: New Jersey Department of Environmental Protection

NJGS: New Jersey Geological Survey

OSTF: Morris County Open Space Trust Fund

Plan: MCMUA’s Open Space Acquisition and Stewardship Plan

Riparian Buffer: A riparian buffer refers to the area along a stream that is naturally vegetated. The riparian zone serves as a buffer to pollutants entering a stream from runoff, controls erosion, and provides habitat and nutrient input into the stream.

Surface Water: Water that is open to the atmosphere, includes rivers, lakes, streams, and reservoirs.

Wellhead: The place where a spring comes out of the ground.

Wellhead Protection Area: (WHPA), A wellhead protection area is a surface and subsurface land area regulated to prevent contamination of a well or well-field supplying a public water system. The 1986 Federal Safe Drinking Water Act Amendments (Section 1428, P.L. 93-523, 42 USC 300 et. Seq.) direct all States to develop a Well Head Protection Program WHPP Plan for both public community (CWS) and public non-community (NCWS) water-supply wells

Wetlands: Wetlands, as defined by the EPA, are “areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods during the year, including during the growing season.” Wetlands are one of the most productive habitats on the planet supporting both aquatic and terrestrial life.



**Butterfly Weed (*Asclepias tuberosa*)
in the Alamatong Wellfield**

APPENDIX

Appendix 1 MCMUA Open Space Monitoring Reporting Form



Open Space Monitoring Reporting Form

Property Name: _____

Location

Block(s): _____ Lot(s): _____

Municipality: _____

Property Owner

Name: _____

Address: _____

Phone: _____

Date of Closing (Deed Restriction Starts): _____

Total Acreage & Acreage Under Restriction: _____ / _____

Date/Time of Inspection: _____ Weather/ Temp: _____

Inspector's Name: _____ Date of Previous Inspection: _____

Photographs Collected: No Yes If yes, photographs are attached.

Sign of Unpermitted Land Use: No Yes If yes, please explain

Sign of Property Encroachment: No Yes If yes, please explain

Sign of Illegal dumping: No Yes If yes, please explain

Structures:

Land Use Characteristics:

Field Flora:

Field Fauna:

Field Hydrology (Include Drainage Basin):

Field Geology:

Detailed Descriptions & Observations:

Site Sketch:

Signature: _____ Date: _____

Appendix 2 Intern Overview



Morris County Municipal Utilities Authority Intern Program

Calling all Students!

Applications for the MCMUA Internship Program are now open

Overview:

The MCMUA's Internship Program is designed to offer students in high school and college with an opportunity to work and gain knowledge in their field of study. The internship program is focused on stewardship projects and field studies of the MCMUA's various open space properties as well as day to day operations in the recycling department. This internship is unpaid and duration will be considered on a case by case basis.

Qualifications:

To be considered applicants must currently be a student or a recent graduate with a degree in Environmental Science, Environmental Studies, Biology, or another related field. Applicant must possess the ability to work independently and as part of team, the ability to work outdoors, and have a valid NJ Driver's License.

Interested applicants should email resume and cover letter to: info@mcmua.com

Appendix 3 Intern Policies and Procedures



Morris County Municipal Utilities Authority Intern Program Policies and Procedures

Introduction:

Upon selection, intern will work with MCMUA staff to come up with an intern requisition form which will outline hours of work, duration of work, proposed rate of pay if applicable, and any other paperwork that may be needed by education institution.

After requisition form as been agreed on by both parties, intern with assistance from MCMUA staff will need to follow proper County procedures to obtain County ID badge, permission to use County vehicle, and internet capabilities.

MCMUA staff will provide intern with introduction and brief orientation of what policies and procedures intern is expected to follow during the duration of internship. Staff will also give intern a tour of facilities and open space properties that the intern will be focused on as well monitoring procedures for field work.

Intern will be expected to keep track of hours worked and have MCMUA staff review and sign off at the conclusion of each week.

Goals:

The goal of the MCMUA Intern Program is to enhance and create stewardship opportunities for the open space properties owned by MCMUA.

- Each property should be monitored by an intern every three years and interns should create written reports documenting monitoring of the property done during the internship as well as any projects led by the intern that enhanced the quality of the property.
- Intern should gain knowledge and working experience of open space management. Other opportunities include gaining knowledge and working experience of recycling.

Expectations:

Interns will be expected to spend a lot of time working outside monitoring open space properties. Monitoring can include stream assessments (procedures will be gone over with intern), inventory of flora and fauna, misuse of open space properties that go against MCMUA Open Space Plan, and other monitoring that may seem fit. This information will be used to track changes of Open Space properties over time and will determine what if any stewardship should be done by intern and staff.

In addition to monitoring, interns will be expected to complete one environmental stewardship project relating to work done by MCMUA. Projects can include but are not limited to rain barrel workshops, native plantings, invasive plant pulls, litter cleanups, and more. Projects should be discussed with staff prior to being held.

Conclusion:

At the conclusion of the internship MCMUA will provide intern with final progress report and complete any paperwork intern may need for education institution. Intern will be expected to return County ID badge as well as any supplies borrowed from MCMUA.

Appendix 4 MCMUA Funded Open Space Properties (Rev. 08/2021)

Municipality	Project Name	Owners	Acreage	Grant Amount
Boonton Township	Koehler Pond	Township of Boonton, Kinnelon Borough, Rockaway Township	184.38	\$300,000.00
	Dixon's Pond	New Jersey Conservation Foundation	129.55	\$150,000.00
Chatham Township	Giralda Farms	County of Morris, Chatham Township	135.992	\$1,250,000.00
Chester Township	Shale Pits	Schiff Natural Lands Trust Inc.	46.532	\$400,000.00
	Chester Township Open Space Project	Morris County Municipal Utilities Authority	35.3	\$0.00
Denville Township	Jonathan's Woods	State of New Jersey, MC Park Commission, Denville Township	430.416	\$750,000.00
Florham Park Borough	Fish Brook Park	Borough of Florham Park	10.995	\$100,000.00
Harding Township	Primrose Farm Estates – Phase I	Town of Harding	16.312	\$250,000.00
	Primrose Farm Estates – Phase II	Harding Land Trust	96.812	\$150,000.00
Jefferson Township	Farley Property	JCP&L Co. & County of Morris	35.28	\$3,200,000.00
	Tedford Property	County of Morris	10.78	\$174,000.00
Kinnelon Borough	Waghaw Mountain Greenway – Denise Drive Tract	Kinnelon Borough	62.83	\$100,000.00
	Waghaw Mountain Greenway – Saw mill Road Tract	Kinnelon Borough	116.834	\$50,000.00
	Weber Tract	Morris County Park Commission & Kinnelon Borough	162	\$300,000.00
Mendham Borough	Valley Brook Springs	Mendham Borough & Schiff Natural Lands Trust Inc.	107.49	\$300,000.00
	Mendham Farmland Acquisition	Mendham Borough	10.56	\$0.00
Mendham Township	Bojczuk	County of Morris	46.794	\$542,340.00
	Leddell Preserve	Mendham Township	69.58	\$500,000.00

	Wilmerding	Schiff Natural Lands Trust Inc. & Township of Mendham	127.07	\$368,000.00
Mine Hill	Crimi Property	County of Morris	64.53	\$1,550,000.00
	Dickerson Mine Tract	Township of Mine Hill	191.82	\$1,000,000.00
	Frustol	County of Morris	16.3	\$280,000.00
	Canfield Property	Township of Mine Hill	46.64	\$400,00.00
	Mine Hill Open Space Project	Randall LLC.	2.07	\$1.00
Morris Township	Lupo Tract	Morris Township	7.68	\$64,170.00
	Morris Twp. Properties Phase I	Morris Township	3.4	\$302,000.00
	Morris Twp. Properties Phase II	Morris Township	7.76	\$100,000.00
	Vallevue Farm	Morris Township	21.017	\$100,000.00
	St. Mary's Abbey	County of Morris, Order of St. Benedict, Morris County Park Commission	185.99	\$1,000,000.00
Mount Arlington Township	Mount Arlington Open Space Project	Mount Arlington Township	3.4866	\$0.00
Mount Olive Township	Roman Catholic Diocese of Paterson	Blue Sky Real Estate Holdings LLC.	12.85	\$103,000.00
	Camp Pulaski Open Space Project	County of Morris	76.39	\$2,420,000.00
	Old Waterloo Road Open Space Project	County of Morris	241.8417	\$2,420,000.00
	Flanders Netcong Project A	MCMUA	1.1	\$4,750,000.00
	Flanders Netcong Project B	MCMUA	18.9	\$1,575,000.00
	Pleasant Hill Open Space Project	County of Morris	254.53	\$0.00
	D. Hoffman	County of Morris	9.82	\$472,000.00
	Mesch Property	Andrew Mesch & Gail Smith	6.384	\$17,556.00
	Able Property	Land Conservancy of NJ	10.338	\$30,600.00
	South Branch Headwaters	Township of Mount Olive	134.94	\$500,000.00
	Vreeland Property	Jason & Jill Kohrs	11.825	\$32,500.00
	West King Estates	Land Conservancy of NJ	208.849	\$282,500.00

	Smith-Marra Property	Land Conservancy of NJ	17.97	\$29,400.00
Parsippany Troy-Hills Township	Edwards Road Open Space Project I	MCMUA	1.996	\$4,750,000.000
	Edwards Road Open Space Project II	MCMUA	2	\$0.00
	New Road Project I	MCMUA	.15	\$165,000.00
	New Road Project II	MCMUA	.38	\$170,000.00
	New Road Project III	MCMUA	.28	\$189,000.00
	Edwards Road Open Space Project III	MCMUA	0.2108	\$0.00
Randolph Township	Stull Properties	County of Morris	61.95	\$362,000.00
	Stull Properties II	County of Morris	15.825	\$615,488.00
	Alamatong Wellfield Properties	MCMUA	9.4	\$0.00
	Alamatong Open Space Purchases Black River	MCMUA	141.339	\$0.00
	Alamatong Pleasant Hill Purchases	MCMUA	98.62	\$109,835.00
	Alamatong Park Ave Purchases	MCMUA & County of Morris	210.855	\$1844,210.85
	Alamatong Righter Road Open Space	MCMUA	33.16	\$362,000.00
	Delben Properties	Township of Randolph	33.91	\$776,750.00
	Alamatong Dover- Chester Rd.	MCMUA	2.145	\$0.00
	Emmerich I Property	County of Morris	26.847	\$462,000.00
	Emmerich II Property	County of Morris	9.015	\$282,000
	Bost Property	County of Morris	2.18	\$109,835.00
	Baum Property	County of Morris	36.44	\$1,100,000.00
	Jones Property	County of Morris	1.84	\$148,800.00
Rockaway Borough	Rockaway Borough	Township of Denville	7.167	\$90,000.00
	Rockaway Borough Easement Acquisition	Rockaway Borough	10.16	\$150,000.00
Rockaway Township	Beaver Brook II	Rockaway Township	41.896	\$100,000.00
	Feichter Property	Matthew Lalomia	25.388	\$50,000.00
	Timothy Property	County of Morris	11.871	\$35,000.00

Roxbury Township	Roxbury Righter Properties	County of Morris, Randolph Twp.	426.3	\$1,694,000.00
	Roman Catholic Diocese of Paterson Properties	County of Morris	34.28	\$103,000.00
	Farley Properties	JCP&L	35.28	\$3,200,000.00
	CSP General Construction	Twp. of Roxbury	14.4	\$375,000.00
	Triple Lakes Greenway	Township of Roxbury	14.4	\$425,000.00
	Rothman Property	Roxbury Township	14.8	\$4,650.00
	Sweney Property	Roxbury Township	33.749	\$14,000.00
	Castellana Property	Township of Roxbury	26	\$160,167.00
Washington Township	Reservoir Road	Washington Township	126.57	\$300,000.00
	Lillis	Brzozowski Estate	144.707	\$78,700.00

Appendix 5 MCMUA Open Space Acquisition Program Application



OFFICIAL USE ONLY
DATE RECEIVED: _____
APPLICATION#: _____

**Morris County Municipal Utilities Authority
 Open Space Acquisition Program Application**

Applicant Information

Property Owner's Name: _____

Property Owner's Mailing Address: _____

City, State & Zip Code: _____

Property Owner's Telephone Number: _____

Property Owner's Email Address: _____

If applicable, check if the property is owned by a(n): Estate: _____ Partnership: _____ Corporation: _____

Contact Person: _____

Project Information

Project Name: _____ Municipality: _____

Property Address: _____

Block #	Lot #	Assessed Value:	Annual Property Taxes:	Acres per Lot
		Total:	Total:	Total:

Current Use of the Site: _____

Have commercial activities ever taken place on this property? __ YES __ NO

Are there any leases, rental agreements, easements or deed restrictions affecting the property? __ YES __ NO



OFFICIAL USE ONLY
DATE RECEIVED: _____
APPLICATION#: _____

Are there any mortgages or liens on the property? __ YES __ NO

Have you ever applied here or elsewhere to sell this property for preservation? __ YES __ NO

If yes to any of above, please describe: _____

Date you acquired title to the property: _____

Are there any structures located on the property? __ YES __ NO

If yes, what type of structure? _____

Appraised Value and Date of Appraisal _____

Funding Request: _____

*NOTE: While the asking price is a key element in the evaluation of this property, it is non-binding, and is not a commitment on the part of the Court of Morris to pay this amount should this property be selected for acquisition.

What is the name of the closest water body? _____

Have you pursued, or are you pursuing, any subdivision or development approvals on the property? __ YES __ NO

If yes, please describe purpose: _____

This site contains the following natural resource characteristics (check all that apply):

- Flood plains Wetlands Aquifer recharge area/ Aquifer
- Headwaters of FW1 Streams (please specify) _____
- Headwaters of FW2 Streams (please specify) _____
- Headwaters of C1 Streams (please specify) _____
- Wellhead Protection Area (please specify) _____
- Endangered or threatened wildlife/ habitat/ vegetation (please specify) _____
- _____
- Unique or Exceptional Ecosystems (please specify) _____
- _____



OFFICIAL USE ONLY
DATE RECEIVED: _____
APPLICATION#: _____

Application Checklist

1. Complete application and send to Larry Gindoff, Executive Director (L.Gindoff@co.morris.nj.us). This is a rolling application and can be submitted at any time throughout the year.
2. Attach a legible street map with site clearly indicated.
3. Attach a property survey
4. Attach a tax map with site clearly indicated.
5. Attach copies of deed(s) to all properties subject to the application.
6. Attach a copy of Appraisal.
7. Any applicable photos of the current property and/or photos of the structures onsite.
8. Attach a one-page project narrative explaining why this project is a high priority for your municipality or organization. Please be sure to include if the site serves as a direct benefit to a community or noncommunity public water supply.

Note High priority will be given to sites that serve as a direct enhancement to the MCMUA's water resources. Additionally, projects that serve as a direct enhancement to conservation of water resources for the County of Morris will also be considered for acquisition.

Owner Certification

I hereby certify that the information included in this application is true, that I am the legal owner of the property described above, that I have marketable title to the property and that I have the legal right to sell the property. I hereby authorize the staff of the MCMUA, or its designee, to conduct such site inspections on the property as are necessary to this application. I understand that the MCMUA will not use its eminent domain authority to acquire the property for open-space purposes if I choose not to participate, or if negotiations fail.

Signature of Owner (Applicant)	Date	Signature of Owner (Co-Applicant)	Date
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Return to:
 Morris County Municipal Utilities Authority (MCMUA)
 214A Center Grove Road,
 Randolph, NJ 07869
 Attn: Larry Gindoff, Executive Director (L.Gindoff@co.morris.nj.us)
 Contact: (973) 285-8384

The MCMUA Open Space Acquisition Program exists to acquire open space in the County of Morris and dedicate those lands that are purchased to the preservation and conservation of water resources.