

TEN MILE RUN AND SIMONSON BROOK GREENWAY PLAN

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Prepared by:
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Prepared for:
Franklin Township Environmental Commission
and
Office of Environmental Services
Department of Environmental Protection and Energy

TEN MILE RUN
AND
SIMONSON BROOK
GREENWAY PLAN

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INTRODUCTION:

This document provides a long-term plan of action for the creation of a protected greenway along the Ten Mile Run and Simonson Brook in Franklin Township, Somerset County, New Jersey. It identifies properties by Block and Lot with their ownership, and proposes the appropriate action for creating a high-quality, protected natural resource for the citizens of the Township. I also review the location of a recreational trail system, should one ever be considered.

I have divided this project into four parts, each with a slightly different focus:

1. The first part is a short discussion of greenways. This focuses attention on the characteristics of greenways and the environmental factors influenced by greenways.
2. The second part is a Descriptive Analysis of the Ten Mile Run and Simonson Brook greenways. This leads the reader along the greenway system, identifying special features and necessary acquisitions or easements for the protection of the greenway. It also follows the route of a recreational trail along the greenway.
3. The third part is the Ten Mile Run and Simonson Brook Ownership with Proposed Long-term Acquisition Plan. This section identifies each lot along the greenways and proposes action to be taken to create a significant protected greenway system.
4. The fourth part is a map of the proposed greenway indicating land ownership for protected parcels and proposed acquisitions and conservation easements.

TEN MILE RUN AND SIMONSON BROOK GREENWAY

THE VISION:

Franklin Township is in the middle of a land use revolution. The forests that covered the landscape and sheltered native Americans for centuries fell to the axes of the European colonists during the 18th century. By the mid-nineteenth century farmland predominated in the landscape with scattered woodlots remaining that served the many active, productive farms. The open farmland with scattered woodlots has persisted for over 200 years in Franklin Township, but recently the landscape has been changing.

Over the past two decades the population of Franklin Township and the surrounding area in central New Jersey has been growing faster than most other places in the United States. The farmland is being replaced by suburban housing developments, large office buildings and warehouses, and commercial developments. The natural heritage that should be a part of everyone's life is rapidly disappearing. The farmland has been invaded by houses, streets and lawns and even the woodlots and riparian woodlands are no longer safe just because they are poor farming soils or too wet for the plow. The thousands of different species of plants and animals that make their homes in these natural areas are being extirpated through habitat destruction. The greenway concepts presented here for the Ten Mile Run and Simonson Brook seek to preserve some of the historical landscape along with the habitats for many of the plants and animals. With the additional concept of a trail through the greenway, this environment can be accessible for the citizens of Franklin Township so they may enjoy their natural heritage and learn about the many species and interactions that are a part of their natural surroundings.

The Ten Mile Run and Simonson Brook are adjacent watersheds draining into the Millstone River. These streams flow through farmland, woodlots and housing developments in their paths to the Millstone. The Greenway proposed by this analysis seeks to identify some of the special features that exist along these two streams. These are features that could provide homes for needy plants and animals, recreation for generations of human residents, increased property value for nearby residents, reduced risk of flooding along these streams, and cleaner water for everyone.

A SHORT DESCRIPTION OF THE CHARACTERISTICS OF GREENWAYS

Greenways are linear open spaces. The nature of the Ten Mile Run - Simonson Brook Greenway, however, goes beyond the simple linear open spaces, and includes the concepts of corridors and nodes. The nodes are larger open space areas that preserve some valuable components of the landscape and the corridors connect the nodes providing avenues of movement for plants and animals. Both nodes and corridors are important for the long-term persistence of some of the unusual species native to Franklin Township. Nodes, such as the Bunker Hill Environmental Education Center, provide larger habitat patches where the disturbance from the edges does not penetrate to the center of the patch. This allows certain species that are sensitive to such disturbances to survive within the developing landscape. The corridors, connecting different nodes, increase the probability of survival by increasing the movement possibilities for animals and plants so a population that goes extinct in one patch may be replaced by colonists from another patch. This helps to mitigate the damage to natural communities that is caused by habitat fragmentation.

The corridor and node concepts also allow the construction of a connecting trail system, if so desired, to encourage people to experience the different nodes and corridors and the different characteristics of each. The primary function of a greenway corridor and node system is to protect a significant part of our natural heritage. There are, however, many other functions performed by these systems.

One of the very important functions is the maintenance of water quality. Commercial or residential development and even farming increase erosion. The replacing the humus layer in forests with impervious surfaces or open farm fields, speeds the runoff of rainwater. This rapidly moving water carries with it incredible loads of sediment from disturbed soils, fertilizers, pesticides, salts, oils, fuels and other petrochemicals, solid waste, and industrial toxins. Native vegetation surrounding streams is usually the most effective means for maintaining water quality and it needs little or no maintenance. The native vegetation and associated woodland soils filter the water as it moves toward streams. Three hundred feet of forest next to a stream will reduce sediment load entering the stream by 50-75% and serves to filter other pollutants as well.

The turbidity that may develop with increased sediment load in streams reduces photosynthesis of aquatic plants decreasing productivity at the base of the aquatic food chain. It may impair vision in visual aquatic species, delay spawning in some

species, clog fish gills and increase susceptibility to disease. The sediment will smother spawning beds, fill special habitats in stream depressions and alter water temperature.

The increased organic load, nutrient levels and pesticide loading that accompanies the sediment in the rapid runoff in suburbanizing areas depresses oxygen content of the water changing species composition in the streams and causing fish kills, may cause eutrophication, algal blooms and associated oxygen depletion and fish kills, or may provide enough toxic materials to impede growth and reproduction of many aquatic species.

In addition to the appreciable biological and physical value of greenways, they provide areas for people to go walking, jogging, cross-country skiing, birdwatching, or simply to enjoy the natural landscape.

ECONOMIC BENEFITS:

In addition to the recreational and intrinsic value of such an aesthetically pleasing amenity, greenways also provide significant economic benefits. Greenways are not developed properties, so the costs of services for new residents are not borne by the tax base for the Township. Individual homes in Franklin Township are a net drain on the tax base. To make up for this drain, ratable, commercial establishments are allowed to build so the Township may get some of the taxes from these establishments. These establishments, however, provide more jobs and lead to the construction of more houses which leads to what has been termed the "ratables chase". Unfortunately, as more houses are built, the rural character of the community is lost and the assessed value of homes and business in the area go down, yielding less money from taxes. This leads to higher tax rates on decreasing property values and a lower quality of life.

In many circumstances, not only does the acquisition of open space slow or stop the spiral of decreasing land values and increasing taxes, but the loss in tax revenues from removing open space from the tax rolls is made up from the increase in land values near the open space. There is evidence that increases in both residential and corporate property values generated by proximity to open space may extend for an appreciable distance surrounding the open space. This is reflected in the perceived quality of life in a community.

Greenways preserve the maximum diversity of life using a minimum of buildable open space. In the case of the Ten Mile Run

and Simonson Brook Greenways, the special nodes and the corridors connecting the nodes use land that, in most cases, will be difficult to develop. The relative value of this potential conservation and recreational resource is therefore quite large.

PHASING IN A GREENWAY NODE AND CORRIDOR NETWORK:

The protection and use of this potential resource can be viewed as three phases:

PHASE 1: The first phase should involve the protection of the waterway and the water quality. This should include the riparian vegetation as this is the most cost-effective way of maintaining the water quality.

The primary rule is that any vegetative buffer is better than no vegetative buffer, and that maintaining high water quality, a larger buffer is better. The State requirement for a 50-foot buffer on each side of a stream should be regarded as a poor minimum. Most sources recommend at least a 150-foot buffer. The Delaware and Raritan Canal Commission, for example, requires 100 feet beyond the 100 year flood line. To maintain the resource, however, as a water source that supports a diverse stream flora and fauna, a 300-foot buffer is indicated. The 300-foot buffer not only protects the water quality but also provides a valuable 600-foot corridor for persistence and movement of wildlife.

PHASE 2: The second phase involves the protection of the nodes of valuable habitat located along the stream corridor. These remaining refuges of some of Franklin Township's biodiversity and an integral part of the protection plan. These larger areas provided needed habitat for interior forest species that would be unable to survive for long periods in the narrower corridors. Linking these nodes with the corridors is not a new concept. It was recognized very early in landscape design by Frederick Law Olmsted in his "Emerald Necklace" concept for the green space in Boston. This concept has also received much attention in the quantitative sciences of island biogeography and landscape ecology, both of which recognize the important value of structural connections in areas where preservation of large tracts of land is either impossible or impractical.

PHASE 3: The third phase involves the development of public access to this resource. Although this can be

detrimental to the integrity of the natural systems one is attempting to protect, if done properly, with attention to the natural communities, the greenway network can become an aesthetic, recreational, and educational resource for the community. A sensitive trail system can provide beautiful recreational opportunities, away from noise and automobiles. With appropriate signage and literature, it can also become an educational resource, teaching everything from historical perspective to biochemical pharmaceuticals.

DESCRIPTIVE ANALYSIS OF THE
TEN MILE RUN AND SIMONSON BROOK GREENWAY
IN FRANKLIN TOWNSHIP, NEW JERSEY

GRIGGSTOWN CAUSEWAY NORTH TO NEW CANAL CROSSING:

Optimal:

The greenway trail would proceed along the Delaware and Raritan Canal towpath from the Griggstown Causeway to the point where the Ten Mile Run crosses under the canal to enter the Millstone River. At this point a footbridge will need to be constructed to cross from the canal towpath to the eastern side of the canal.

Special Features:

*****Here the trail passes along the towpath of the Delaware and Raritan Canal. This section of the greenway is already protected, but a portion of the forest has been disturbed by the AT&T cable right of way. This forest, designated stand 49/8 on the Franklin Township forest survey is dominated by pin oak, ash, and silver maple with some trees reaching 30" in diameter. The forest also has red maple, sycamore, hickory and boxelder with an understory of spicebush.

Access/Acquisition Needs:

To allow access to the Ten Mile Run section of the greenway a footbridge will be required to span the Delaware and Raritan Canal at the point where the Ten Mile Run passes under the canal to enter the Millstone River. All of the property in this section is currently in public ownership.

DELAWARE AND RARITAN CANAL TO BUTLER ROAD:

Optimal:

The greenway trail would proceed along the south and east side of the Ten Mile Run from the Delaware and Raritan Canal to Butler Road. The majority of the stream corridor along this section is wooded. The trail should remain in the woods, but elevated at least 5 to 10 feet above the flood plain on the southern bluffs of the stream.

Special Features:

*****Franklin Township owns or will own the majority of the stream corridor in this section of the Greenway. The stream corridor next to the canal contains a stream-side wetland forest of ash, norway maple and boxelder, while woodland 48/16, as identified in the Forest Survey, lies on

Township owned land in the middle of this section. This 60-acre woodland is dominated by red and white oak, ash and sugar maple. It includes hickory, red maple, flowering dogwood, black cherry and American beech with an understory of maple leaf viburnum. There is an opportunity here for a small loop trail into more upland woods for educational purposes.

Access/Acquisition Needs:

The Township should acquire both Block 19, Lots 36 and Block 33, Lots 16 and 17. These properties should be added to the Delaware and Raritan Canal State Park or preserved as farmland in perpetuity. The Township should also acquire a conservation easement on Block 33, Lot 18 for stream protection. In addition, the Township should acquire at least a 300-foot strip on the northeast side of the run on Block 33, Lot 3 including a conservation easement on all of the remaining forested land. This property is already under farmland preservation.

BUTLER ROAD TO BUNKER HILL ROAD:

Optimal:

The greenway trail should continue on the southwest side of the run from Butler Road almost all the way to Route 27. The trail will first pass through a wooded section of Township-owned land. The trail then enters the property currently owned by the golf course. On the eastern portion of the golf course, the way along the stream is broken by fairways and paths whereas the eastern portion is wooded, with the riparian woodlands following the stream almost all the way to Route 27. There are several opportunities for connecting links with the Simonson Brook along this section of the greenway.

The first possible link occurs on Block 20.02, Lot 70.02. The linking trail could ascend the hill from the stream and link with Ridge Boulevard in the Sunset Hills development. From Ridge Boulevard walkers could proceed down Forest Avenue to Bunker Hill Road and cross Bunker Hill Road to enter the Bunker Hill Environmental Education Center and link with the Simonson Brook Trail.

The second possible link occurs on the golf course Block 20.02, Lot 23.07. On this lot a wooded tributary to the Ten Mile Run connects with Bunker Hill Road. Across the road the trail could proceed through the wooded portion of Block 11.01, Lot 9.02 to link with the Simonson Brook greenway.

The third possible link is only a short distance upstream from the second link and connects the Ten Mile Run to the larger

forest patch that is bisected by Bunker Hill Road. This link follows the southwestern property line of Block 22.01, Lot 12.03 and enters the woods of Block 11.01, 16.01. The trail could cross the road at any point here to enter the wooded Block 11.01, Lot 9.02 and then continue on to Lot 10.01 to connect with the Simonson Brook greenway.

The fourth possible link follows a very small wooded tributary on Block 11.01, Lot 16.01 that connects with the larger forested portion of the same lot at the top of the hill. From here as with the third possible link, the trail could cross Bunker Hill Road to enter Block 11.01, Lot 10.01 and then connect with the Simonson Brook greenway.

Special Features:

*****This section contains woodland 54/15 that is dominated by tulip, sugar maple, hickory and red oak. This stand of woodland has relatively large topographic relief for Franklin Township with a greater than 100 foot drop from the top of the hill above Ridge Boulevard to the Ten Mile Run. Trees range from 100-150 years old on the boulder strewn hilltop to younger stands near the stream. The understory includes flowering dogwood, red cedar and spicebush. This site is large enough to provide both a loop trail off the main greenway trail as well as providing a connection to the Simonson Brook greenway.

*****Further up the stream on the eastern end of the golf course property a 50-acre stand dominated by ash, sugar maple, red oak and beech follows the course of the Ten Mile Run. This section protects the stream from excessive pollution and siltation and provides an excellent natural environment for the continuation of the greenway trail.

*****The top of the hill that is bisected by Bunker Hill Road holds a very special patch of woodland that is extremely valuable in the providing the natural link between the Ten Mile Run watershed and the Simonson Brook watershed. The woodland on this hilltop was identified as stands 59/18 and 59/19 on the forest survey of Franklin Township. The woodland is dominated by tulip trees with some reaching over 36" in diameter. There are also black, red and white oak, ash, dogwood and sugar maple. The passage of Bunker Hill Road through the tract has given a forest interior view to all those traveling the road.

Access/Acquisition Needs:

Along Ten Mile Run the Township owns Block 20.02, Lot 70.02. This links with property owned by the Bunker Hill Golf Course, Block 20.02, Lots 19, 23.07 and 25.05. The Township would need a public access right-of-way along the Ten Mile Run on Lots 23.07 and 19. The Township should acquire a 600 foot right-of-way through Block 20.02, Lot 12.03, and consider purchasing the portion of this lot to the west of the Ten Mile Run. In addition, the Township should acquire a 600-foot conservation easement centered on the stream in Block 20.02, Lot 16 and consider purchasing the portion of this lot to the west of the stream with the exception of about 10 acres nearest to Route 27.

To create access to the Simonson Brook Greenway through Sunset Hills, the Township would need to acquire a 30-foot public access right-of-way through the southern neck of Block 31, Block 7.01 to gain access to Ridge Boulevard. This section of the trail would be greatly enhanced if a conservation easement were obtained for all of this lot.

To create access to the Simonson Brook Greenway by the second possible link the Township would need to acquire the eastern-most section of Block 20.02, Lot 23.07 that gives access to Bunker Hill Road via a wooded stream corridor. This acquisition could be linked with the acquisition of Block 20.02, Lot 19, suggested above.

To create the third possible link the Township will need a 30-foot right-of-way along the western boundary of Block 20.02, Lot 12.03 and through the western-most point of Block 20.02, Lot 16.01 to gain access to Bunker Hill Road.

To create the fourth possible link access is provided through a large hedgerow connecting the stream with the wooded area (59/18). All of these links could be accomplished through the acquisition of Block 20.02, Lots 23.07(part), 19, 25.05(part), and 16(part). When this acquisition is linked with the purchase of Block 11.01, Lots 9.02, and 10.01(part)(see below), the total creates a significant block of open space that is

strategically located for educational and recreational use by a growing population center and that includes important landscape features for preservation.

BUNKER HILL ROAD TO THE ENVIRONMENTAL EDUCATION CENTER:

Optimal:

Two of the four possible linking trails between the Ten Mile Run and Simonson Brook pass through Block 11.01, Lot 9.02 before entering Block 11.01, Lot 10.01. A third of the links passes directly from Bunker Hill Road onto Lot 10.01. All three of these linking trails are proposed to meet at the southwest corner of Lot 10.01 where they pass as a single trail onto Block 11.01, Lot 13. At this point, Lot 13 is an early successional community of eastern red cedar, flowering dogwood, red maple and ash. The trail should follow the northern lot line for Lot 13 until it reaches the property of the Bunker Hill Environmental Education Center. Here the trail will reach the Simonson Brook and will be able to take advantage of the many trails and educational opportunities of the Education Center.

Special Features:

*****The wooded section of Block 11.01 Lots 9.01 and 10.01 have been described above. This node, as part of the corridor and node system, provides amenities for the dense development to the north and east, along South Middlebush Road and for the possible cluster development on Block 11.01, Lot 13, directly to the west and south.

*****The Bunker Hill Environmental Education Center provides a special set of opportunities for information about the entire greenway concept. The Environmental Education Center has a diverse history of land use ranging from young fields to older forest. The woodland (designated 59/10M,N,S,&W) are dominated by tulip and red oak with more than 20 other species of trees. The center already provides diverse educational opportunities for the children of Franklin Township and the greenway corridor and node concept will only add to their understanding of conservation of biological resources in a changing environment.

Access/Acquisition Needs:

In addition to the acquisition of Block 11.01, Lot 9.02 and part of 10.01 mentioned above, the

Township must also acquire a public access right-of-way along the northern boundary of Lot 13 between Lot 10.01 and the Environmental Education Center. This right-of-way should be at least 30-feet wide and should include a conservation easement at least 100 feet wide where natural vegetation will remain. This will serve as a wildlife corridor between the nodes on the system and as a buffer between the two adjacent different housing densities.

Efforts should also be made to ensure that the negotiated settlement that resulted in the proposed dedication of property behind the Environmental Education Center to Franklin Township is not compromised. This plan serves both to protect the stream as well as expand the node at the Environmental Education Center, protecting the integrity of the plant and animal communities there.

ENVIRONMENTAL EDUCATION CENTER TO THE GRIGGSTOWN CAUSEWAY:

Optimal:

The Simonson Brook Greenway should leave the Environmental Education Center property following the Brook through Block 11.01, Lot 1.01. It can then wind through the wooded lot, Block 11.01, Lot 111, following the bluff above the brook on the south side. The trail should enter Block 11.01, Lot 83 at the southwest corner of Lot 111. From this point a 30-foot minimum public access right-of-way should follow the north boundary of Lot 83 all the way to Canal Road (almost 1 mile). In addition, a conservation easement, where all natural vegetation will remain, should extend at least 300 feet south of the center of the brook to protect the stream. The greenway trail can then cross Canal Road and follow the Griggstown Causeway to link with the Canal Towpath to complete the loop.

Special Features:

*****Block 11.01, Lot 111 and adjacent properties support the woodland designated 56/9 on the Franklin Township woodlands survey. This woodland is dominated by sugar maple, red oak, ash, and American beech. It is one of the old woodlands in Franklin, represented on the 1887 map of woodlands in this part of New Jersey and it has additional importance because it adds to the integrity of the woodlands on the Environmental Education Center.

Access/Acquisition Needs:

The Township should acquire all of Block 11.01, Lots 1.01 and 111. These lots not only add significantly to the greenway and serve to protect the water quality of the stream and reduce the flood risk in Griggstown, but they also greatly increase the long-term quality of the Environmental Education Center by preventing development encroachment in this area.

The Township should also acquire a public access right-of-way at least 30-feet wide along the northern boundary of Block 11.01, Lot 83. In addition, a conservation easement 300 feet wide, south of the center of the Simonson Brook should be acquired during any development application.

TEN MILE RUN AND SIMONSON BROOK LAND OWNERSHIP
WITH PROPOSED LONG-TERM ACQUISITION PLAN

Ten Mile Run - Simonson Brook Greenway

Block	Lot	Acres	Owner
19	33	92.2	State of NJ, Dept of Cons & Econ Dev John Fitch Plaza Trenton, NJ 08625

D&R Canal

19	36	24.3	Lester Terhune RD 1 Princeton, NJ 08540
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This property should be preserved either as farmland or as wild open space. It protects the canal and the Ten Mile Run, and it preserves the rural, historic character of this area.

CANAL ROAD

33	18	256x233	Lester Terhune RD 1 Princeton, NJ 08540
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A conservation easement at least 50 feet wide along the Ten Mile Run should help to monitor the protection of the stream on this property.

33	17	35.9	Lester Terhune RD 1 Princeton, NJ 08540
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This property should be preserved either as farmland or as wild open space, It protects the canal viewshed and the Ten Mile Run, and it preserves the rural, historic character of this area.

33	2	91.2	Anna Nieman RD 2, Box 381 Somerset, NJ 08873
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The Township should seek to acquire a 300-foot conservation easement along the Ten Mile Run to protect the stream quality and decrease the problems with rapid runoff. Efforts should be made to work within the requirements for

continued farming on this preserved farmland.

33	13		Township of Franklin
			475 DeMott Lane
			Somerset, NJ 08873

This property is designated as part of the land donation from the development agreement made with K. Hovnanian Inc. The division of this lot does not yet show on the Township Tax Maps.

33	16	83.3	Lester Terhune
			RD 1
			Princeton, NJ 08540

This property should be preserved either as farmland or as wild open space, It protects the canal viewshed and the Ten Mile Run, and it preserves the rural, historic character of this area.

33	14.01		Township of Franklin
			475 DeMott Lane
			Somerset, NJ 08873

BUTLER ROAD

20.02	98	24.323	Township of Franklin
			475 DeMott Lane
			Somerset, NJ 08873

20.02	8	109.7	Catalpa Investment Group Inc.
			Rt 611 & Ferry Rd., P.O. Box 73
			Danboro, PA 18916

Acquire a 300-foot conservation easement on the east side of the stream here.

20.02	70.02	20.145	Township of Franklin
			475 DeMott Lane
			Somerset, NJ 08873

20.02	23.07	32.862	Bunker Hill Golf Course
			RD 2
			Princeton, NJ 08540

Acquire a 30-foot wide public access right-of-way along the west side of the Ten Mile Run. If development is ever contemplated, acquire a 300-foot conservation easement along the west side of the stream. In addition the Township

should acquire a public access right-of-way and a conservation easement on about 2 acres in the southern-most part of the property adjacent to Block 20.02, Lot 19 (see below). This should include the stream corridor access to Bunker Hill Road between lots 24 and 22.

20.02 25.05 112.369 Bunker Hill Golf Course
RD 2
Princeton, NJ 08540

If development is ever contemplated, acquire a 300-foot conservation easement along the east side of the stream.

20.02 19 13.87 Urs F. Nager
110 Bunker Hill Road
Princeton, NJ 08540

The Township should obtain a 30-foot public access right-of-way along the slope adjacent to the flood plain of the Ten Mile Run. In addition the Township should obtain a 300-foot conservation easement on the west side of the Ten Mile Run.

20.02 12.03 100.28 Garry & Marion Boekhout
3411 Rt. 27
Franklin Park, NJ 08823

The Township should acquire a portion of this property including the stream and the portion of the lot to the west of the stream including approximately 40 acres.

11.01 16 68.2 Sydney Kuchin
375 Cooper Rd.
Red Bank, NJ 07701

The Township should acquire a portion of this property including the stream and part of the property west of the stream. This parcel should include the woodland designated 59/19.

BUNKER HILL ROAD

11.01 9.01 285x300 Virginia H. & Howard Craig
Rd 1, Bunker Hill Rd.
Princeton, NJ 08540

An attempt should be made to keep the trails at least 100 feet from the Craig property line.

11.02 9.02 20.5 Michael Mellis
P. O. Box 312
Colonia, NJ 07067

The Township should acquire this property in fee simple. It lies in the path of two of the linkage trails and is an important part of the eastern node in the greenway corridor and node system.

11.01 10.01 67.748 Robert J. Rose
Chicken Valley Rd.
Locust Valley, NY 11560

The Township should acquire the northwestern portion of this property including all the mature woodland and about 30 acres. This is also an important part of the eastern node of the greenway corridor and node system.

11.01 13(part) Gold Star/Georgetown Properties Inc.
11.01 81(part),111 625 Madison Ave.
11.01 51,53,54,55,56,57 New York, NY 10022

All property within the RR-5 zone will be deeded to the Township when the remainder of the property is developed. This includes about 84 acres. Most of the land south of the Bunker Hill Environmental Education Center is included in this 84 acres. Lot 111 is not included in the acreage and it should be acquired if possible. This parcel includes not only a portion of the Simonson Brook corridor but also an important section of the forest continuous with the forest on the Environmental Education Center property.

11.01 50 & 59 10.19 Franklin Township
475 DeMott Lane
Somerset, NJ 08873

Part of the Environmental Education Center when the Gold Star Properties land is transfered to the Township.

11.01 58 9.27 Jack Field
RD 1, Butler Rd.
Princeton, NJ 08540

This is an out-parcel in the Environmental Education Center expansion and should be acquired by the Township.

11.01 2.01 95.63 Franklin Township
475 DeMott Lane
Somerset, NJ 08873

11.01 1.01 69.5 Howard M. and Virginia Craig
RD 1
Princeton, NJ 08540

The Township should acquire this property in fee simple to add to the Environmental Education Center and protect the Simonson Brook.

11.01 83 40.8 Joseph S. Miles
73 Reservoir St.
Jersey City, NJ 07307

The Township should secure a 30-foot public access right-of-way along the northern boundary of this property. In addition, a conservation easement protecting natural vegetation should extend 300 feet from the south of the center of the brook.

The remainder of these properties in Block 11.01 are partly within the flood plain of the Simonson Brook. They should be encouraged to practice stream protection by retaining as much natural vegetation as possible adjacent to the brook.

11.01 84 2.1 Suzanne Nash
RD 1
Princeton, NJ 08540

11.01 85 2 Griggstown Reformed Church
Skillman, Station Sq.
Belle Mead, NJ 08502

11.01 94 4.38 Roy Birkland
Mosher Rd.
Princeton, NJ 08540

11.01 95 3.15 John & Robin DeStefano
1102 Hickory Ct.
So. Brunswick, NJ 08824

11.01 97.01 175x550 Robert L. & Barbara J. Young
RD 1, Mosher Rd.
Princeton, NJ 08540

11.01 97.02 125x600 John J. Kinelski
RD 1, Mosher Rd.
Somerset, NJ 08873

11.01	98	198x563	Peter J. & Paul A. Crossman 46 Tingley Rd. Brookside, NJ 07926
11.01	100	299x563	Sigurd & Alice Berven RD 1 Princeton, NJ 08540
11.01	102	2.45	John A. & Cathryn E. Grennen RD 1, Mosher Rd. Princeton, NJ 08540
11.01	104	169x534	William M. & Diane Allen 218 Mosher Rd. Princeton, NJ 08540
11.01	105	184x607	Olav & Donna L. Brastad RD 1, Mosher Rd. Princeton, NJ 08540
11.01	106	141x611	Kenneth M. & Darlene Hammer 94 Mosher Rd. Princeton, NJ 08540
11.01	107	115x589	Gregory P. Job RD 1 Mosher Rd. Princeton, NJ 08540
11.01	108	149x556	Robert & Marjorie Christiansen RD 1, Mosher Rd. Princeton, NJ 08540
11.01	109	159x489	Michael T. & Patricia A. Reilly 112 Mosher Rd. Princeton, NJ 08540
11.01	110	159x485	Raymond S. Berven Rd 1, Mosher Rd. Princeton, NJ 08540
CANAL ROAD			
19	1	10.3	St. of NJ, Dept of Cons & Econ Dev
	2	0.6	John Fitch Plaza
	5	1.2	Trenton, NJ 08625

TEN MILE RUN AND SIMONSON BROOK GREENWAY PLAN

LEGEND:

TOWNSHIP

OPEN SPACE

STATE

OPEN SPACE

PRIVATE

OPEN SPACE

PROPOSED

ACQUISITIONS

CONSERVATION

EASEMENTS

TRAIL

SYSTEM



Prepared by:
Fort

Edmund W. Stiles
Franklin Township
Environmental Commission

Sponsored by:

The Township of Franklin
and
The Office of Environmental
Services
Department of Environmental
Protection and Energy



APPENDIX

WOODLANDS WITHIN THE
TEN MILE RUN
AND
SIMONSON BROOK
GREENWAY PLANS

Data by size class:

Size	BA	RBA	D	RD
A	18	15.8	366.6	75.5
B	32	28.1	72.4	14.9
C	50	43.9	40.7	8.4
D	14	12.3	5.8	1.2

Stand coordinates: 48/16

Sampling date: 24 Jun 86

Points sampled: 10

Region: Mid

Forest Area: 24.0 ha

Data by species:

Species	Size Classes										
	A	B	C	D	BA	RBA	F	RF	D	RD	IV
Red Oak		8	18	3	29	25.4	80	18.6	34.0	28.6	72.6
Ash		5	17	6	28	24.6	80	18.6	27.7	23.3	66.5
Sugar Maple	14	4	4		22	19.3	70	16.3	12.3	10.3	45.9
White Oak	1	4	5	1	11	9.6	70	16.3	13.5	11.3	37.2
Black Oak		5	3	1	9	7.9	30	7.0	14.2	11.9	26.8
Hickory	1	4	2	1	8	7.0	50	11.6	11.1	9.3	27.9
Red Maple				2	2	1.8	10	2.3	0.8	0.7	4.8
Dogwood	2				2	1.8	20	4.7	0	0	6.5
Black Cherry		1	1		2	1.8	10	2.3	3.1	2.6	6.7
Beech		1			1	0.9	10	2.3	2.3	1.9	5.1
Standing dead	(1	2	4	2	9)						
Total					114				119		

Old can dump at mid Northern part of forest. Old stumps E of dump.
Upland area E Tenmile Run younger than above: A & Bs, Redcedars.

Shrubs: Maple-leaved Viburnum

Data by size class:

Size	BA	RBA	D	RD
A	9	10.1	183.3	62.2
B	36	40.4	81.5	27.6
C	31	34.8	25.3	8.6
D	9	10.1	3.7	1.3
E	4	4.5	1.0	0.3

Stand coordinates: 49/8

Sampling date: 30 Jun 86

Points sampled: 10

Region: Riparian

Forest Area: N=39.5, S=7.5 ha

Data by species:

Species	Size Classes					BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E							
Pin Oak	1	14	14	5	2	36	40.4	100	32.3	45.7	41.0	113.7
Ash	5	12	8	2		27	30.3	90	29.0	34.5	30.9	90.2
Silver Maple	1	7	6	2	2	18	20.2	70	22.6	22.1	19.8	62.6
Red Maple	1		2			3	3.4	10	3.2	1.6	1.4	8.0
Sycamore		2	1			3	3.4	20	6.5	5.3	4.8	14.7
Hickory		1				1	1.1	10	3.2	2.3	2.1	6.4
Boxelder	1					1	1.1	10	3.2	0	0	4.3
Standing dead		(8	11	3		22)						
Total						89				111.5		

Wetland: Millstone floodplain. AT&T cable right-of-way through forest.

Shrubs: Spicebush

Data by size class:

Size	BA	RBA	D	RD
A	18	18.6	366.6	85.0
B	11	11.3	24.9	5.8
C	32	33.0	26.1	6.1
D	27	27.8	11.2	2.6
E	9	9.3	2.3	0.5

Stand coordinates: 54/15

Sampling date: 17 Jun 86

Points sampled: 10

Region: South

Forest Area: 19.1 ha

Data by species:

Species	Size Classes					BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E							
Tulip	4		8	11	8	31	32.0	80	15.4	13.1	20.3	67.7
Sugar Maple	5	4	3			12	12.4	70	13.5	11.5	17.8	43.7
Hickory		3	4	2		9	9.3	50	9.6	10.9	16.9	35.8
Red Oak		1	3	5		9	9.3	40	7.7	6.8	10.5	27.5
Dogwood	7	1				8	8.2	80	15.4	2.3	3.6	27.2
White Oak			4	2	1	7	7.2	50	9.6	4.3	6.7	23.5
Beech			4	1		5	5.2	40	7.7	3.7	5.7	18.6
Ash			3	2		5	5.2	30	5.8	3.3	5.1	16.1
Black Oak			2	3		5	5.2	40	7.7	2.9	4.5	17.4
Sassafras		1	1	1		3	3.1	10	1.9	3.5	5.4	10.4
Sweet Cherry	1	1				2	2.1	20	3.8	2.3	3.6	9.5
Elm	1					1	1.0	10	1.9	0	0	2.9
Standing dead	(3	1	10	2		16)						
Total						97				64.6		

Shrubs: Spicebush

Herbs: Mayapple, Jack-in-the-pulpit

Data by size class:

Size	BA	RBA	D	RD
A	19	20.2	387.0	83.1
B	23	24.5	52.1	11.2
C	18	19.1	14.7	3.1
D	23	24.5	9.6	2.1
E	8	8.5	2.0	0.4
F	3	3.2	0.5	0.1

Stand coordinates: 56/9

Sampling date: 30 Jun 86

Points sampled: 10

Region: South

Forest Area: 190.7 ha with
59/10E

Data by species:

Species	Size Classes						BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E	F							
Sugar Maple	10	6	2	1			19	20.2	70	14.9	15.6	19.8	54.9
Red Oak		2	3	7	4	1	17	18.1	70	14.9	11.1	14.1	47.1
Ash	1	7	6	1			15	16.0	50	10.6	21.2	26.9	53.5
Beech	2	4	1	3	1		11	11.7	60	12.8	11.4	14.5	39.0
Tulip				6		2	8	8.5	50	10.6	2.8	3.6	22.7
White Oak	1		2	2	3		8	8.5	40	8.5	3.2	4.1	21.1
Hickory	1	2	1	3			7	7.4	50	10.6	6.6	8.4	26.4
Dogwood	3						3	3.2	20	4.3	0	0	7.5
Blackgum		2	1				3	3.2	30	6.4	5.3	6.7	16.3
Red Maple	1						1	1.1	10	2.1	0	0	3.2
Black Oak			1				1	1.1	10	2.1	0.8	1.0	4.2
Black Walnut			1				1	1.1	10	2.1	0.8	1.0	4.2
Standing dead	(3		2	6			11)						
Total							94				78.8		

American Chestnut sprout found near Simonson Brook.
Understory generally open except for gaps.

Shrubs: Maple-leaved Viburnum, Spicebush

Data by size class:

Size	BA	RBA	D	RD
A	25	21.7	509.2	84.5
B	20	17.4	45.3	7.5
C	48	41.7	39.1	6.5
D	22	19.1	9.1	1.5

Stand coordinates: 57/19

Sampling date: 6 Jul 86

Points sampled: 10

Region: South

Forest Area: 19.0 ha

Data by species:

Species	Size Classes					RBA	F	RF	D	RD	IV
	A	B	C	D	BA						
Ash	1	5	20	6	32	27.8	90	19.6	30.1	32.2	79.6
Sugar Maple	19	8	1		28	24.3	90	19.6	18.9	20.2	64.1
Red Oak	1	3	8	8	20	17.4	70	15.2	16.6	17.8	50.4
Beech	1		9	1	11	9.6	30	6.5	7.7	8.2	24.3
Hickory		2	6		8	7.0	50	10.9	9.4	10.1	28.0
White Oak		1	3	3	7	6.1	50	10.9	6.0	6.4	23.4
Swamp White Oak				3	3	2.6	20	4.3	1.3	1.4	8.3
Dogwood	1				1	0.9	10	2.2	0	0	3.1
Hop Hornbeam	1				1	0.9	10	2.2	0	0	3.1
Sweet Cherry		1			1	0.9	10	2.2	2.3	2.5	5.6
Pin Oak			1		1	0.9	10	2.2	0.8	0.9	4.0
Black Oak				1	1	0.9	10	2.2	0.4	0.4	3.5
Elm	1				1	0.9	10	2.2	0	0	3.1
Standing dead	(1	3	1		5)						
Total					115				93.5		

Stream corridor; N and S banks sampled.

Shrubs: Witchhazel

Data by size class:

Size	BA	RBA	D	RD
A	17	18.3	346.2	75.8
B	36	38.7	81.5	17.8
C	31	33.3	25.3	5.5
D	8	8.6	3.3	0.7
E	1	1.1	0.3	0.1

Stand coordinates: 59/10M
 (Center 59/10E from middle AT&T cable E)
 Sampling date: 30 Jun 86

Points sampled: 10

Region: South

Forest Area: 190.7 ha with
 59/10E

Data by species:

Species	Size Classes					BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E							
Tulip		8	20	4	1	33	35.5	80	18.6	36.3	32.9	87.0
Red Maple	1	9	2			12	12.9	50	11.6	22.0	19.9	44.4
Red Oak	3	7	1			11	11.8	70	16.3	16.7	15.1	43.2
Hickory	1	3	1	2		7	7.5	30	7.0	8.4	7.6	22.1
Ash	1	2	3			6	6.5	30	7.0	7.0	6.3	19.8
Beech	1		2	2		5	5.4	50	11.6	2.5	2.3	19.3
Dogwood	4					4	4.3	20	4.7	0	0	9.0
White Oak	2	2				4	4.3	20	4.7	4.5	4.1	13.1
Blackgum	2	1				3	3.2	20	4.7	2.3	2.1	10.0
Chestnut Oak	1	1	1			3	3.2	20	4.7	3.1	2.8	10.7
Sassafras	1	1				2	2.2	10	2.3	2.3	2.1	6.6
Big-toothed Aspen		2				2	2.2	20	4.7	4.5	4.1	11.0
Black Oak			1			1	1.1	10	2.3	0.8	0.7	4.1
Standing dead	(4	1	1			6)						
Total						93				110.4		

Boulder strewn upland.

Shrubs: Maple-leaved Viburnum, Witchhazel, Spicebush

Data by size class:

Size	BA	RBA	D	RD
A	6.3	5.4	127.3	47.5
B	41.3	35.9	93.4	34.8
C	50.0	43.5	40.7	15.2
D	13.8	12.0	5.7	2.1
E	3.8	3.3	0.9	0.4

Stand coordinates: 59/10N
 (Northeastern portion of 59/10E)
 Sampling date: 19 Jun 86

Points sampled: 8

Region: South

Forest Area: 190.4 ha with
 59/10E

Data by species:

Species	Size Classes (8 Pts)											
	A	B	C	D	E	BA	RBA	F	RF	D	RD	IV
Tulip	1	9	19	3	1	41.3	35.9	75	15.0	37.3	33.1	84.0
Red Oak		6	6	3	1	20.0	17.4	100	20.0	20.0	17.7	55.1
Beech	1	4	5	3		16.3	14.1	75	15.0	14.4	12.8	41.9
Red Maple		7	4			13.8	12.0	63	12.5	19.1	16.9	41.4
Ash	1	3	3			8.8	7.6	38	7.5	9.2	8.2	23.3
Black Oak		1	1	1		3.8	3.3	38	7.5	3.5	3.1	13.9
Sweet Cherry	1	1				2.5	2.2	25	5.0	2.3	2.0	9.2
White Oak				1	1	2.5	2.2	25	5.0	0.7	0.6	7.8
Sweet Birch		1				1.3	1.1	13	2.5	2.3	2.0	5.6
Hickory			1			1.3	1.1	13	2.5	0.8	0.7	4.3
Dogwood	1					1.3	1.1	13	2.5	0	0	3.6
Sassafras		1				1.3	1.1	13	2.5	2.3	2.0	5.6
Elm			1			1.3	1.1	13	2.5	0.8	0.7	4.3
Standing dead	(2	1				3.8)						
Total						115.0				112.7		

Boulders.

Shrubs: Spicebush, Maple-leaved Viburnum

Data by size class:

Size	BA	RBA	D	RD
A	11	11.3	224.0	70.3
B	23	23.7	52.1	16.3
C	41	42.3	33.4	10.5
D	21	21.6	8.7	2.7
E	1	1.0	0.3	0.1

Stand coordinates: 59/10S

(Southern portion of 59/10E in horse trail region)

Sampling date: 27 Jun 86

Points sampled: 10

Region: South

Forest Area: 190.4 ha with
59/10E

Data by species:

Species	Size Classes					BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E							
Red Oak		7	18	3		28	28.9	90	20.0	31.8	33.7	82.6
Tulip			7	10		17	17.5	70	15.6	9.9	10.5	43.6
Ash	1	10	3	2		16	16.5	50	11.1	25.9	27.4	55.0
Black Oak			4	4		8	8.2	50	11.1	4.9	5.2	24.5
Dogwood	6					6	6.2	40	8.9	0	0	15.1
Hickory	1	2	2			5	5.2	30	6.7	6.2	6.6	18.5
White Oak			2	2	1	5	5.2	30	6.7	2.7	2.9	14.8
Red Maple	1	2				3	3.1	30	6.7	4.5	4.8	14.6
Sassafras			3			3	3.1	10	2.2	2.4	2.5	7.8
Pin Oak			2			2	2.1	20	4.4	1.6	1.7	8.2
Elm	1	1				2	2.1	10	2.2	2.3	2.4	6.7
Sugar Maple	1					1	1.0	10	2.2	0	0	3.2
Black Walnut		1				1	1.0	10	2.2	2.3	2.4	5.6
Standing dead		(2	3			5)						
Total						97				94.5		

Shrubs: Maple-leaved Viburnum, Spicebush

Data by size class:

Size	BA	RBA	D	RD
A	9	7.3	183.3	59.2
B	31	25.2	70.2	22.7
C	54	43.9	44.0	14.2
D	28	22.8	11.6	3.8
E	1	0.8	0.3	0.1

Stand coordinates: 59/10W
 (59/10 on West side of AT&T cable)
 Sampling date: 29 Jun 86

Points sampled: 10

Region: South

Forest Area: 21.0 ha

Data by species:

Species	Size Classes					BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E							
Tulip		3	31	20	1	55	44.7	100	23.3	40.6	32.2	100.2
Red Oak		8	12	2		22	17.9	80	18.6	28.7	22.8	59.3
Red Maple	6	6	2			14	11.4	50	11.6	15.2	12.1	35.1
Ash		5	4	2		11	8.9	40	9.3	15.4	12.2	30.4
Black Oak		1	3	2		6	4.9	30	7.0	5.5	4.4	16.3
Hickory		3				3	2.4	30	7.0	6.8	5.4	14.8
Dogwood		3				3	2.4	20	4.7	0	0	7.1
Beech			2		1	3	2.4	30	7.0	4.9	3.9	13.3
Sassafras			2	1		3	2.4	20	4.7	5.3	4.2	11.3
White Oak				1	1	2	1.6	20	4.7	1.2	1.0	7.3
Elm			1			1	0.8	10	2.3	2.3	1.8	4.9
Standing dead	(3	1	1	1	1	7)						
Total						123				125.9		

Shrubs: Spicebush, Blackberry

Vines: Virginia Creeper

Data by size class:

Size	BA	RBA	D	RD
A	6	5.7	122.2	51.9
B	29	27.6	65.6	27.9
C	49	46.7	39.9	17.0
D	16	15.2	6.7	2.8
E	3	2.9	0.8	0.3
F	2	1.9	0.3	0.1

Stand coordinates: 59/18

Sampling date: 19 Jun 86

Points sampled: 10

Region: South

Forest Area: 190.4 ha with
59/10E

Data by species:

Species	Size Classes						BA	RBA	F	RF	D	RD	IV
	A	B	C	D	E	F							
Tulip	1	6	11	6	1	1	26	24.8	70	15.2	25.5	22.5	62.5
Ash		8	12	2			22	21.0	90	19.6	28.7	25.3	65.9
Black Oak			11	3			14	13.3	40	8.7	10.2	9.0	31.0
Red Oak		4	7	1		1	13	12.4	70	15.3	15.3	13.5	41.1
White Oak	1		2	3	1		7	6.7	50	10.9	3.1	2.7	20.3
Sassafras	1	4	2				7	6.7	30	6.5	10.7	9.4	22.6
Sweet Cherry	1	2	3				6	5.7	50	10.9	7.0	6.2	22.8
Red Maple		5					5	4.8	10	2.2	11.3	10.0	17.0
Hickory			1	1	1		3	2.9	30	6.5	1.5	1.3	10.7
Dogwood	2						2	1.9	20	4.3	0	0	6.2
Standing dead	(5	3	4				12)						
Total							105				113.3		

Active hunt club access area with blocked jeep trail. Second jeep trail now regrown. Posted: Triple P Gun Club. Boulders.

Shrubs: Spicebush

Herbs: Mayapple

Data by size class:

Size	BA	RBA	D	RD
A	9	6.0	183.3	53.7
B	37	24.5	83.7	24.5
C	77	51.0	62.8	18.4
D	28	18.5	11.6	3.4

Stand coordinates: 59/19

Sampling date: 5 Jun 86

Points sampled: 10

Region: South

Forest Area: 7.9 ha

Data by species:

Species	Size Classes					RBA	F	RF	D	RD	IV
	A	B	C	D	BA						
Tulip	3	27	67	18	115	76.2	100	29.4	123.2	77.9	183.5
Black Oak			5	5	10	6.6	50	14.7	6.2	3.9	25.2
Dogwood	4	1			5	3.3	30	8.8	2.3	1.5	13.6
Red Oak		1	1		3	3.3	40	11.8	4.3	2.7	17.8
Sugar Maple	1	3			4	2.6	40	11.8	6.8	4.3	18.7
Ash		1	3		4	2.6	30	8.8	4.7	3.0	14.4
Sweet Cherry	1	3			4	2.6	30	8.8	6.8	4.3	15.7
White Oak		1	1	1	3	2.0	10	2.9	3.5	2.2	7.1
Beech				1	1	0.7	10	2.9	0.4	0.3	3.9
Standing dead	(1	7	2		10)						
Total					151				158.2		

Tulip domination gives way to mature oaks at NE extention of forest.
 Shrub and herb layers more diverse in oak dominated portion.
 Posted: Shale Brook Gun Club

Shrubs: Spicebush, (Ash seedlings)