



Historic Tree Canopy Analysis

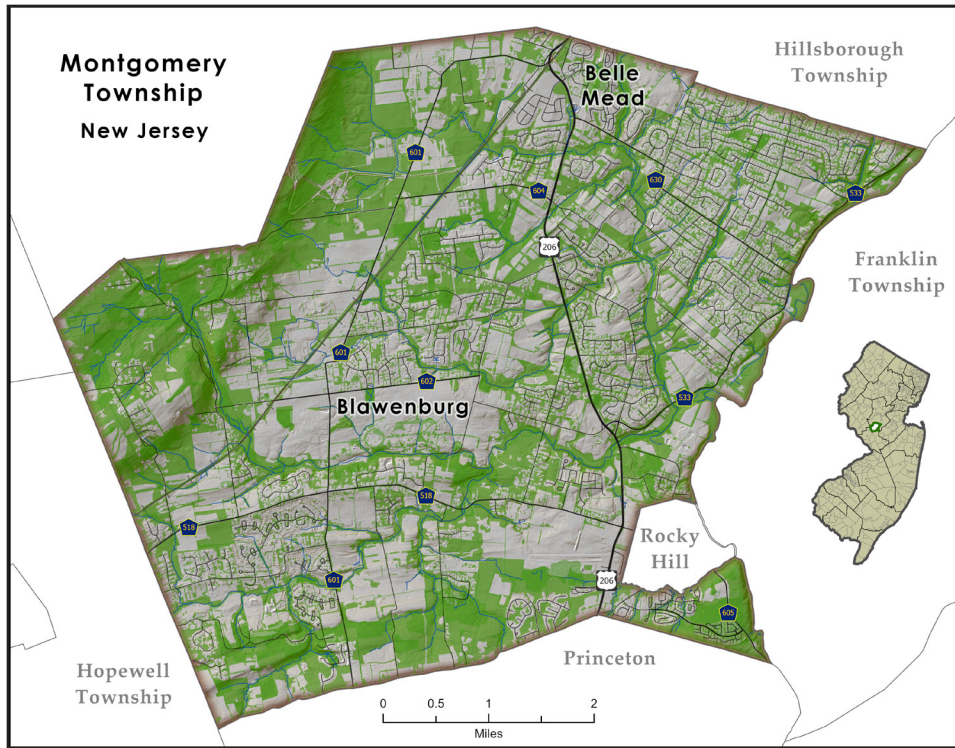
Montgomery Township, New Jersey

1930/2025

Kevin Burkman, GIS Analyst
December, 2025

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INTRODUCTION

Until the mid 20th century, Montgomery Township, New Jersey was largely an agricultural community; except for woods located in lots or along steep slopes or water bodies, the landscape was largely open, and dedicated to crops, orchards, or livestock use. Since that time, the terrain has seen a major shift in its land cover; agriculture has largely been replaced by suburban use. This modern land cover includes expansive property subdivision, covered in residential and business buildings, road infrastructure, and ornamental lawns and flora.

Despite these changes, the township's tree canopy coverage has expanded greatly in the past 100 years, through tree plantings in suburban neighborhoods, as well as relatively undeveloped sites

that have transitioned from agriculture to woods, and riparian zones along waterways. And throughout this radical land cover change, some remnants of Montgomery's agricultural past can still be seen on the landscape, in the form of hedgerows and wood lots.

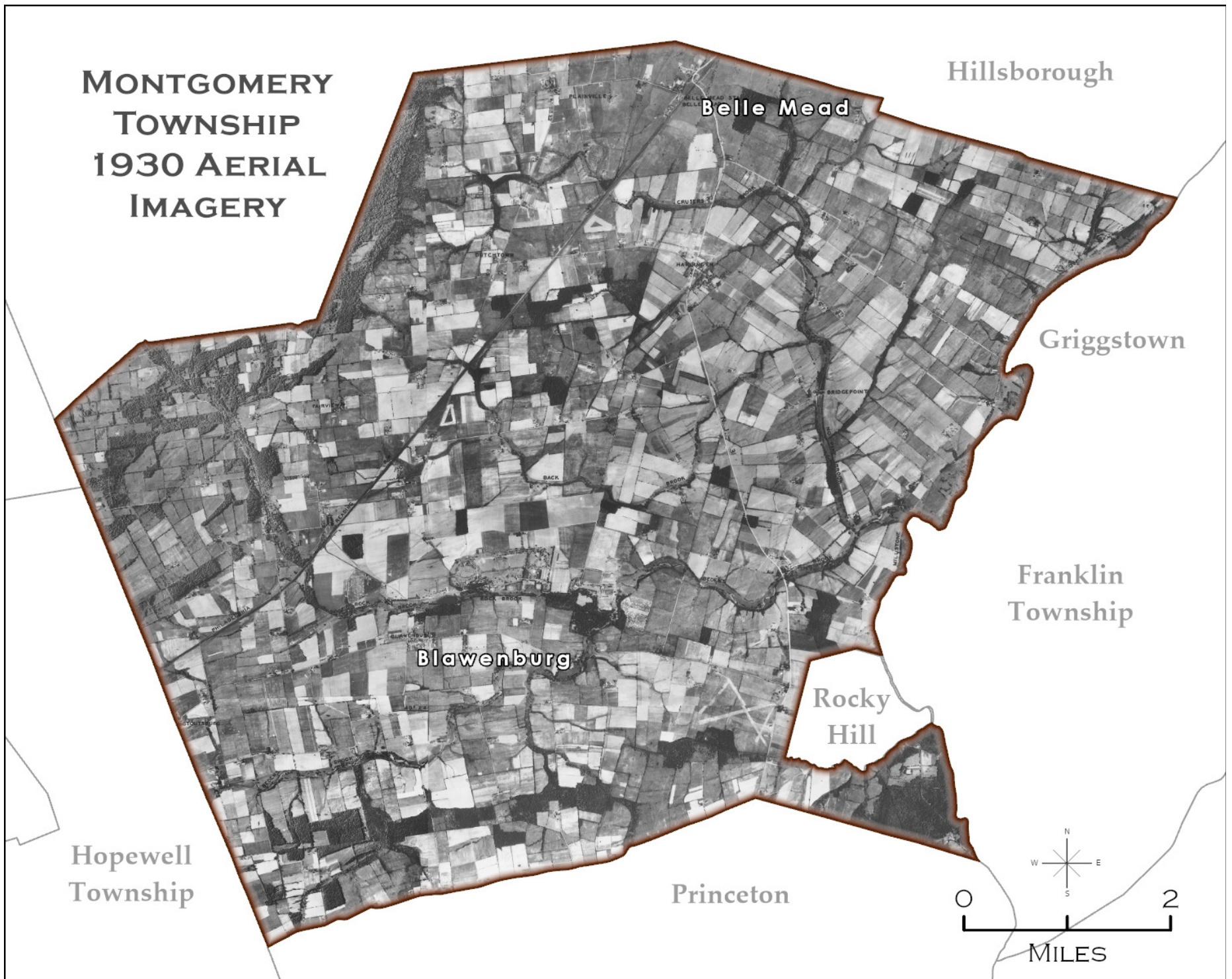
These changes have been determined through the use of geographic information systems (GIS) technology; land cover data was digitized and analyzed from historic 1930 aerial imagery (the first ever in the State of New Jersey), and various modern aerial imagery sources, to determine the extent of tree canopy across two time periods, spanning nearly 100 years.

Aerial photography for mapping, using film and print technology, originated in the late 19th century (in conjunction with hot air balloons), and was used extensively in World War I in aircraft specially designed for this function. By the 1920-30s, many states had begun to use aerial photography to capture land use and cover, including New Jersey, which utilized 261 images to cover the state.

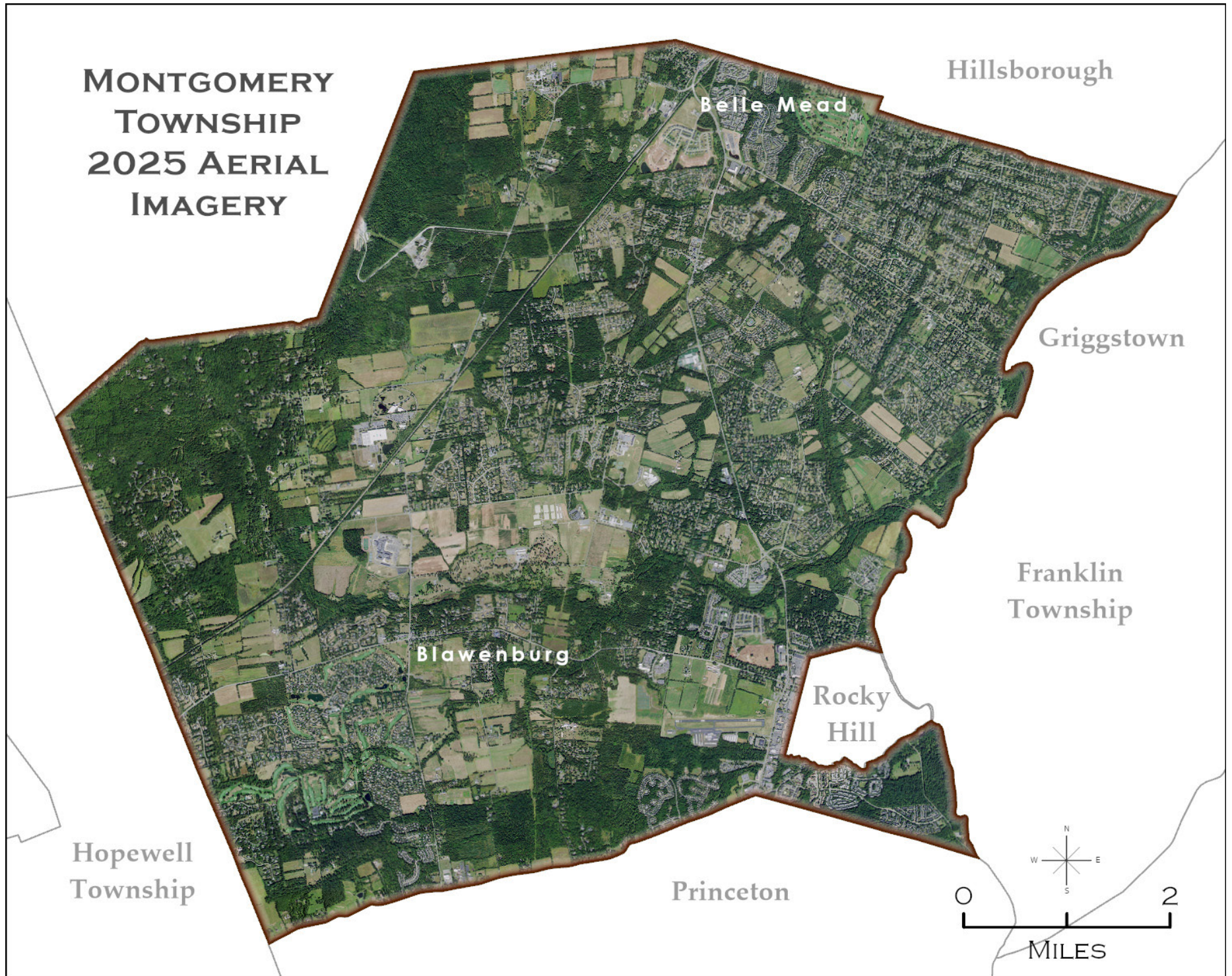
Modern aerial photography for mapping is obtained in digital formats, resulting in outstanding quality, high-resolution aerial imagery, used for commercial, industrial, agricultural, governmental and private clients.

The following two pages illustrate the 1930 and 2025 aerial imagery used for this project, at township scale. Through the use of GIS air photo interpretation and land cover detection tools, varying land cover types can be identified and transformed into spatial data.

**MONTGOMERY
TOWNSHIP
1930 AERIAL
IMAGERY**



**MONTGOMERY
TOWNSHIP
2025 AERIAL
IMAGERY**



PURPOSE

The purpose of this study is to determine the magnitude and spatial extent of land cover changes over 100 years, specifically, tree canopy and historic agricultural features, in Montgomery Township.

The results will enable community members to understand how humans and natural processes are shaping the township's land cover, while providing data for informed decisions in sustainable development, resource management, regional planning, ecological preservation, and climate and natural resource change mitigation over time.

METHODOLOGY

Vegetative land cover features (tree canopy, wood lots, hedgerows, orchards/nurseries) were digitized in both the 1930's and modern aerial imagery, at 1/2000 scale (1" =160 feet), resulting in the creation of feature polygons. This process, known as map digitization, is essential for creating accurate, editable, and shareable spatial data. Once completed, these outputs can be analyzed, layered, and integrated into cartographic representations.

The GIS data have been represented in the following land cover categories:

- ***Tree canopy***
- ***Hedgerows***
- ***Orchards/nurseries***
- ***Extant wood lots***

These features are illustrated in the *Historic Agricultural Features Map* section of this document.

The maps at right illustrate results the GIS data collection process, using the Sourland View Preserve area (preserve boundary in red):

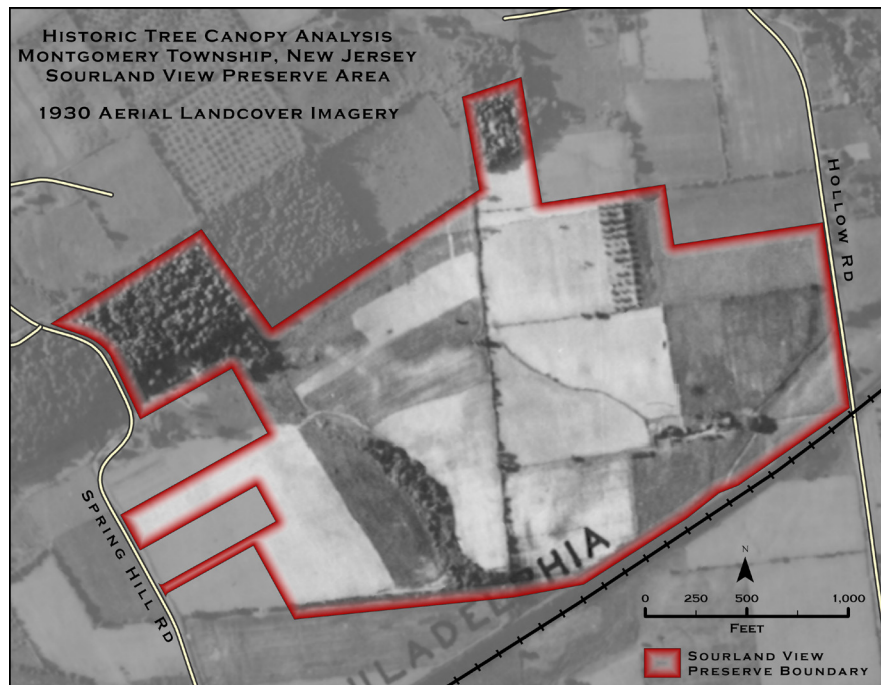
- The top maps, ***1930 Aerial Land Cover Imagery*** and ***2025 Aerial Imagery*** display maps that are exclusively images; they do not contain any GIS data.
- The bottom maps, ***GIS Land Cover Interpretation Based on 1930 Aerial Land Cover Imagery*** and ***GIS Land Cover Interpretation Based on 2025 Aerial Land Cover Imagery*** display GIS data derived from the aerial imagery; these data represent the tree canopy, and are symbolized in green.

NOTE ABOUT ANALYSIS

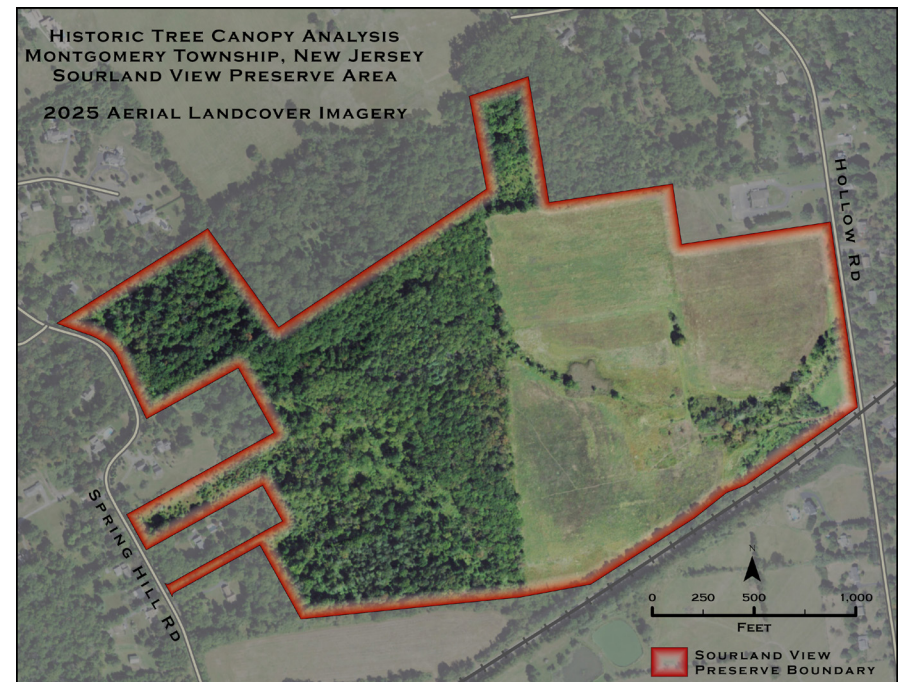
This analysis studies only the geographic extent of the tree canopy in the township; it does not include tree population, species identification, or general classifications (native/ornamental/invasive).



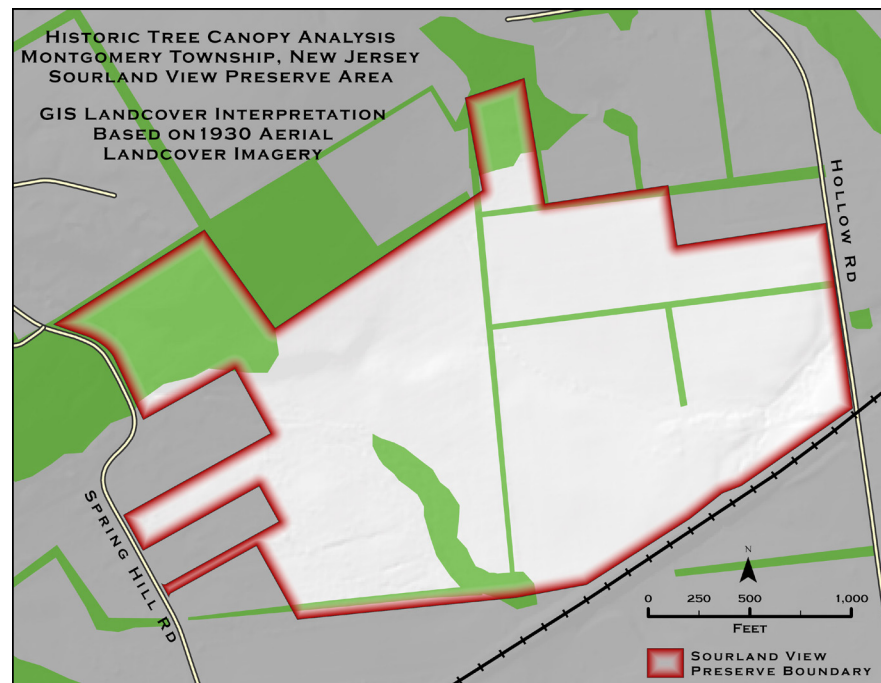
This view of the preserve's "panhandle" in the north highlights an historic hedge row that has transformed into a hardwood forest. The trees in the distance lie along Rock Brook, about a half mile away to the east.



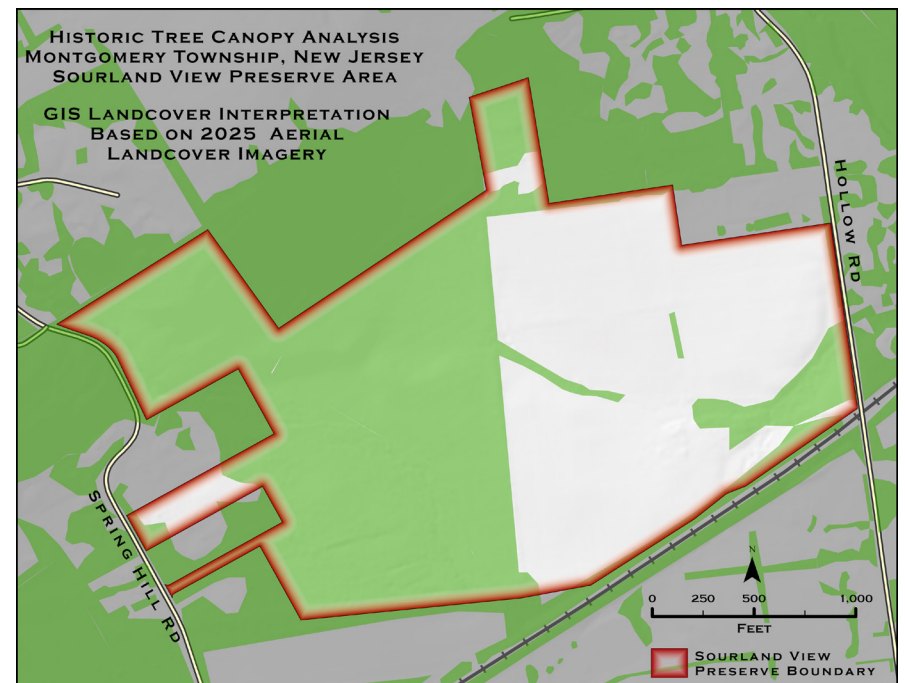
1930 Aerial Land Cover Imagery



2025 Aerial Land Cover Imagery



GIS Land Cover Interpretation Based on 1930 Aerial Land Cover Imagery



GIS Land Cover Interpretation Based on 2025 Aerial Land Cover Imagery

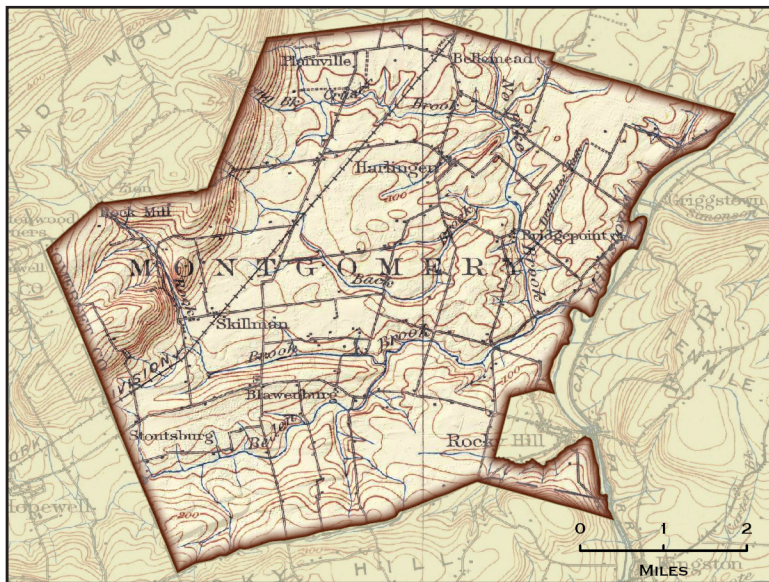
1930 TREE CANOPY ANALYSIS

ANALYSIS SUMMARY

Total area of Montgomery Township: 20,788 Acres
1930 Tree Canopy: 4,025 Acres (19% of township area)

Most of the land cover of Montgomery Township in 1930 was devoted to agriculture, resulting in a small tree canopy extent, comprising just 19% of the township's total area.

Tree canopy was mostly found along streams and bottom-lands throughout the township, as well as the steep ridge along Sourland Mountain, located along the northwest boundary of the township.



Montgomery Township section of the USGS Trenton 1907 Quadrangle Contour Map. Land cover, including wooded areas, did not appear on these maps until mid-century.

AREAS OF INTEREST (clockwise from east):

Pine Tree Run/Pike Run/Bedens Brook: The very thin tree canopy in this section of the township ran along these three stream beds. It also included a land cover feature common to agricultural landscapes; an extensive system of hedgerows.

Princeton Ridge: Tucked into the “panhandle” southeast corner of the township along the Millstone River, this site contained 200 acres of tree canopy.

Skillman Park: Largely unwooded in 1930, this site was once home to several New Jersey state health centers, and was an example of a new land cover emerging in this agricultural region: institutional use.

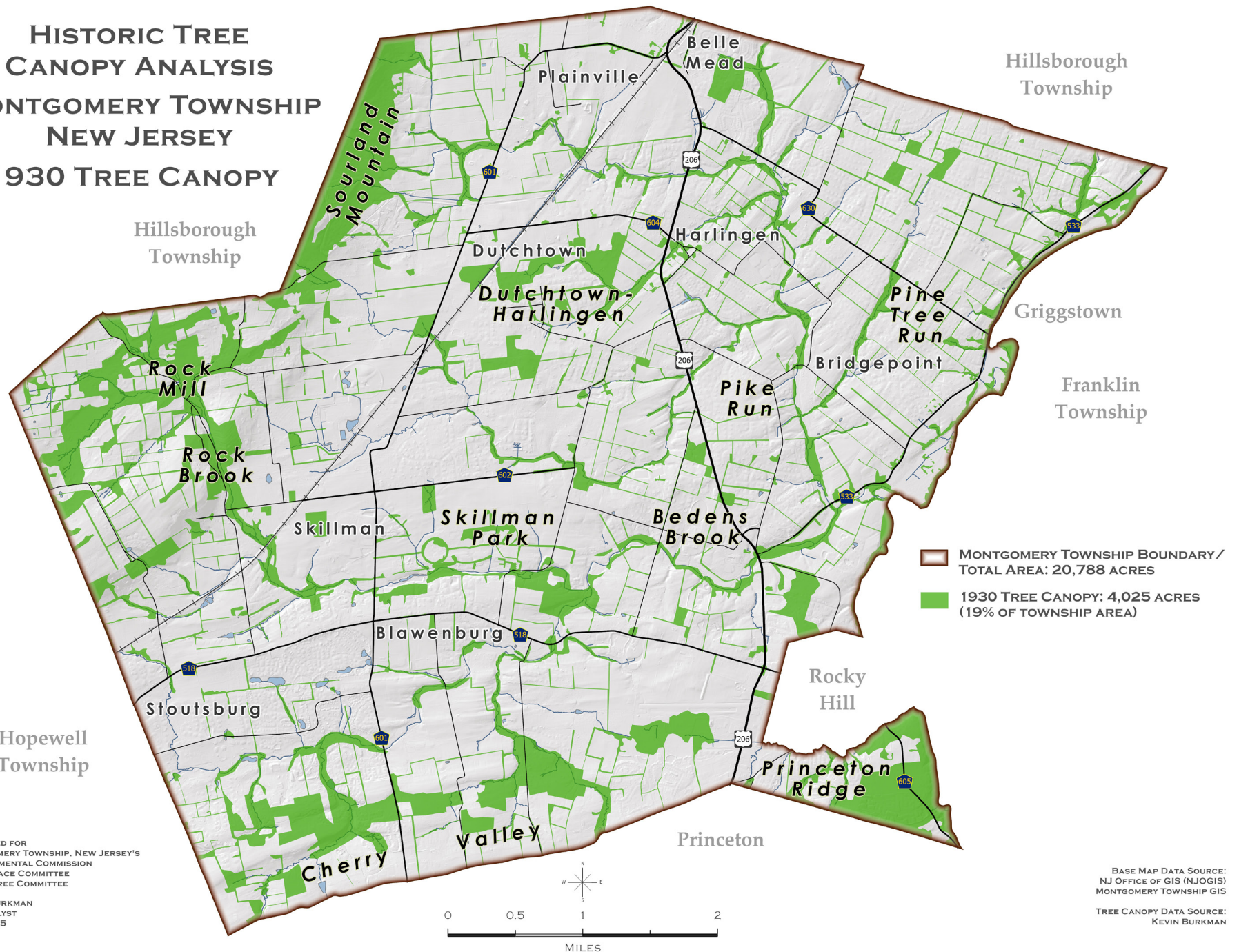
Cherry Valley: This site had a thin but contiguous tree canopy stretching more than two miles in length. Its 500 acre tree canopy was found mostly along the southern tributaries of Bedens Brook.

Rock Mill/Rock Brook: These sites rise into Sourland Mountain along Hollow Rd. Their rugged terrain (steep/rocky) precluded much in the way of agriculture; as a result 500 acres of tree canopy formed in a “T” shape along Hollow, Dutchtown, and Zion-Wertsville roads.

Sourland Mountain: The spine of Sourland Mountain lies along the northwest boundary of the township. Rising 250 feet above the valley to the east, 400 acres of canopy were perched here.

Dutchtown-Harlingen: This area contained 115 acres of scattered tree canopy along the banks of several Pike Run tributaries, while numerous hedgerows were found in the open agricultural fields.

HISTORIC TREE CANOPY ANALYSIS MONTGOMERY TOWNSHIP NEW JERSEY 1930 TREE CANOPY



PRODUCED FOR
MONTGOMERY TOWNSHIP, NEW JERSEY'S
ENVIRONMENTAL COMMISSION
OPEN SPACE COMMITTEE
SHADE TREE COMMITTEE

KEVIN BURKMAN
GIS ANALYST
JULY 2025

BASE MAP DATA SOURCE:
NJ OFFICE OF GIS (NJOGIS)
MONTGOMERY TOWNSHIP GIS

TREE CANOPY DATA SOURCE:
KEVIN BURKMAN

2025 TREE CANOPY ANALYSIS

ANALYSIS SUMMARY

Total area of Montgomery Township: 20,788 Acres
2025 Tree Canopy: 9,639 Acres (46% of township area)

In the nearly one hundred years since the 1930 aerial imagery was produced, significant land use cover change has occurred in the township, as agricultural land cover transitioned to wooded suburban landscapes, or farm land that was left fallow, then transformed to substantial tree canopy. As a result, there has been a **42% increase** in Montgomery Township's tree canopy since 1930.

AREAS OF INTEREST (clockwise from east):

Pine Tree Run/Pike Run/Bedens Brook: This area of the township has been completely transformed; the tree canopy corridors along these streams have significantly widened, and once open agricultural fields are now suburban neighborhoods, with a thin but significantly expanded canopy.

Princeton Ridge: While the tree canopy pattern at this site has changed, its overall acreage has largely stayed the same.

Skillman Park: Like Princeton Ridge, this site has had only a "rearrangement" of tree canopy, without a significant increase.

Cherry Valley: This site has seen a significant increase in tree canopy since 1930; it now covers 1,155 acres, more than double the 1930 canopy. It extends almost continuously 4 miles across the southern boundary of the township.

Rock Mill/Rock Brook/Sourland Mountain:

Due to the rugged nature and environmental conditions of these sites, mid-century suburban development did not reach the level or extent of that in the valleys below.

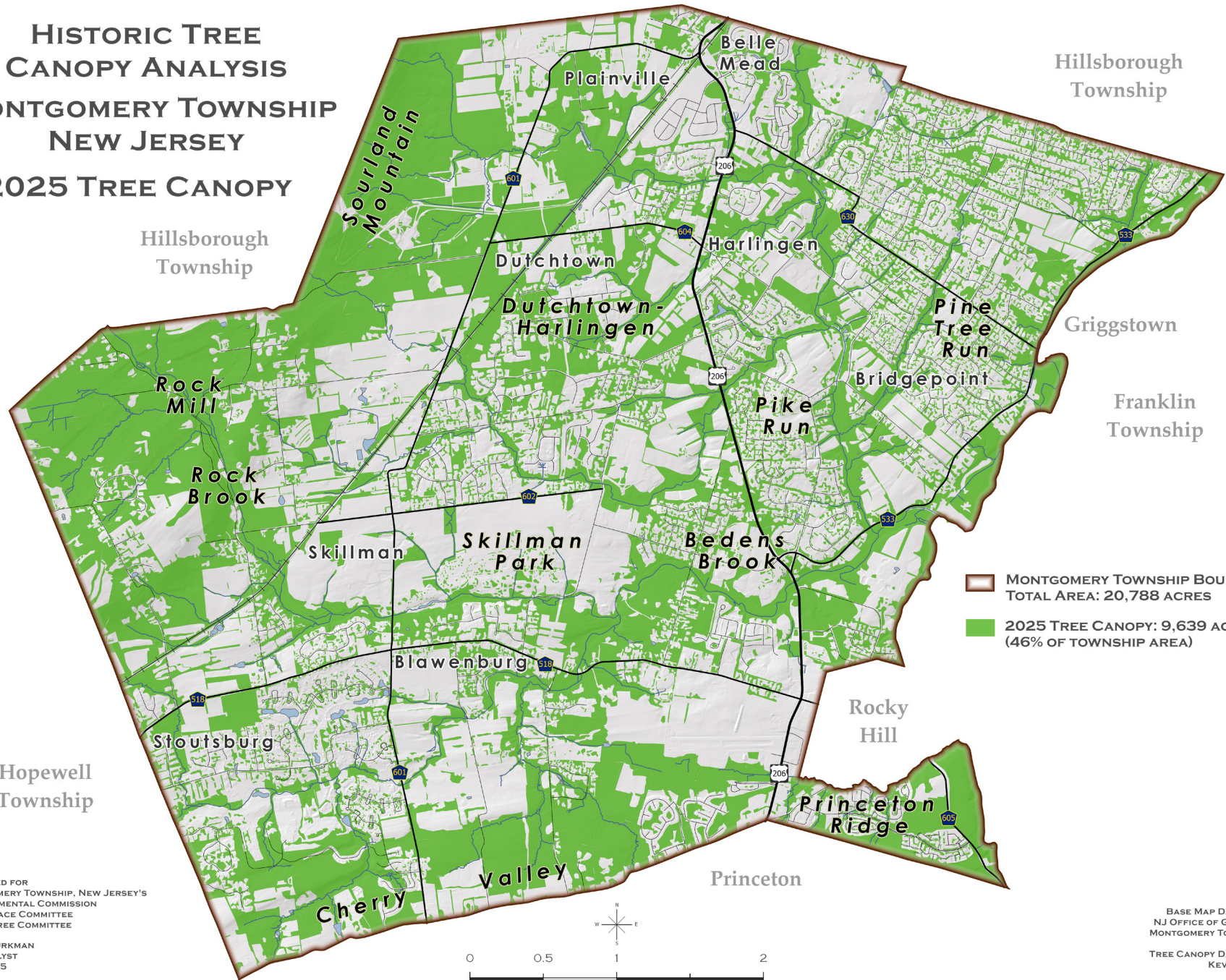
As a result, the tree canopy of Rock Mill, Rock Brook, and the greater Sourland Mountain became fused, making it the largest contiguous tree canopy in the township. In 1930, these sites totaled 900 acres of tree canopy; this same area now contains 2,600 acres of canopy.


Dutchtown-Harlingen: The tree canopy here expanded outward, as suburban neighborhoods and fallow, transitioning fields replaced agricultural land cover; today the canopy has extended to 474 acres.




This map illustrates the Cruser Brook area, in the northwest section of the township. The lighter shade of green represents the 1930 tree canopy; the darker, more prevalent green represents the canopy in 2025.

HISTORIC TREE CANOPY ANALYSIS MONTGOMERY TOWNSHIP NEW JERSEY 2025 TREE CANOPY



 MONTGOMERY TOWNSHIP BOUNDARY /
TOTAL AREA: 20,788 ACRES

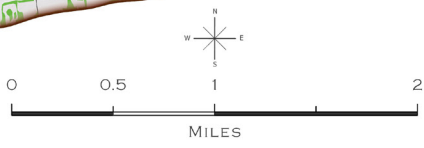
 2025 TREE CANOPY: 9,639 ACRES
(46% OF TOWNSHIP AREA)

PRODUCED FOR
MONTGOMERY TOWNSHIP, NEW JERSEY'S
ENVIRONMENTAL COMMISSION
OPEN SPACE COMMITTEE
SHADE TREE COMMITTEE

KEVIN BURKMAN
GIS ANALYST
JULY 2025

BASE MAP DATA SOURCE:
NJ OFFICE OF GIS (NJOGIS)
MONTGOMERY TOWNSHIP GIS

TREE CANOPY DATA SOURCE:
KEVIN BURKMAN



OVERLAP OF 1930 AND 2025 TREE CANOPY ANALYSIS

ANALYSIS SUMMARY

Total area of Montgomery Township: 20,788 Acres
1930-2025 Tree Canopy Overlap: 3,184 Acres
(15% of township area)

Canopy overlap represents areas where trees detected in both the 1930 and 2025 imagery coincide. More importantly, it reveals where the oldest/largest trees in the township are likely to be found.

AREAS OF INTEREST (clockwise from east):

Pike Run: There is very little overlap between the 1930 and 2025 canopies; the Pike Run Area was almost entirely agriculture, and the small extent of overlapping canopies is found along streams and a few hedgerows.

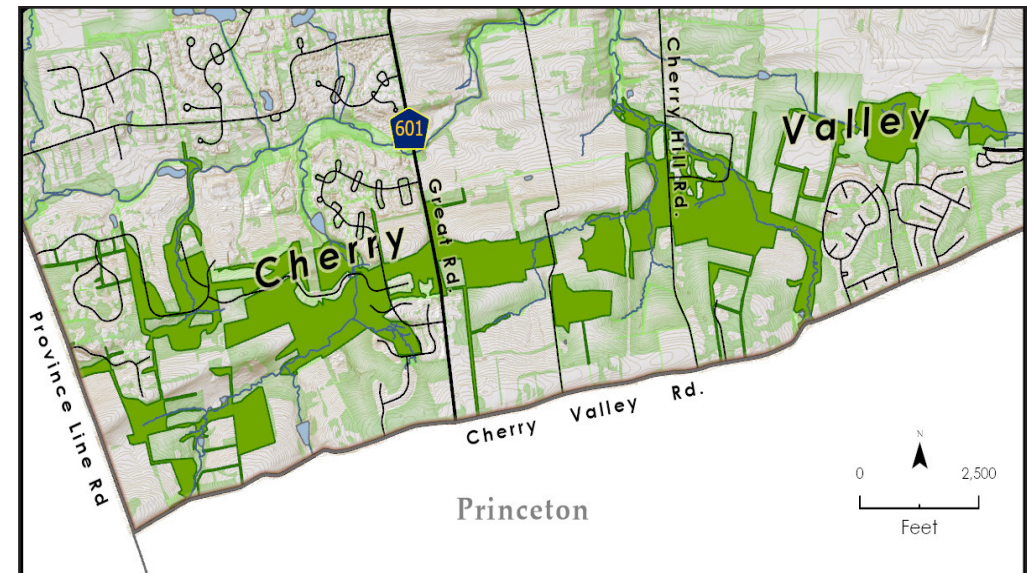
Princeton Ridge: Canopy overlap here is significant, despite modern residential development along Blue Spring Road.

Cherry Valley: 500 acres of canopy overlap stretches along Cherry Valley Road, accounting for nearly half of the canopy extent found there.

Spring Hill Wood Lot: This 30 acre lot straddling Spring Hill Road is one of the most interesting tree canopies in the township; it is composed almost entirely of American beech (*Fagus grandifolia*). Given their size, many are at least 100 years old.

NPDC Wood Lots: The Skillman section of the township is home to two woods lots on the south side of Skillman Road; both are associated with the New Jersey Developmental Center, founded in the late 1800's. The west lot is 14 acres, while the east lot is 10 acres.

Rock Mill-Rock Brook-Sourland Mountain: These three nearly contiguous sites on the heights of the township include over 800 acres of tree canopy overlap, by far the largest in the municipality. Much of this overlap can be seen from Hollow Road, as it rises steeply along Rock Brook, as well as Dutchtown and Zion-Wertsville Roads, in the rural northwest section of the township.



This map features the Cherry Valley region of Montgomery, in its southwest corner. The darker green represents the tree canopy that overlaps 1930-2025, along unnamed Bedens Brook and Cherry Run tributaries.

HISTORIC TREE CANOPY ANALYSIS MONTGOMERY TOWNSHIP NEW JERSEY OVERLAP OF 1930-2025 CANOPY



HISTORIC AGRICULTURAL FEATURES ANALYSIS

For much of the township's history, land cover in the region was dominated by nearly unbroken forests, and inhabited by indigenous Lenni Lenape. By the mid 1600's, however, the land cover was slowly transformed into open, agricultural land use by European settlers, first Dutch, then British. This land cover would remain virtually unchanged for hundreds of years until the mid 20th century, when farmland was replaced by suburban sprawl.

Even though the township is mostly removed from its agricultural beginnings, remnants of this land cover can still be seen, in the form of hedgerows and wood lots, another potential home for some of the oldest trees in Montgomery.

The map at right represents the agricultural features captured during the analysis. These include:

HEDGEROWS

Hedgerows are "living walls" composed of trees/shrubs planted in straight lines by farmers as windbreaks, or to delineate property boundaries. The project analysis detected:

1930 Hedgerows- 103 linear miles

1930-2025 Hedgerows- 15 linear miles

2025 Hedgerows- 11 linear miles

Nearly all of the hedgerows from the 1930's have been removed through suburban development or subsumed into modern tree canopy.

The remaining 11 linear miles of hedgerows in the township are important because they:

- Support biodiversity by providing habitats and corridors for wildlife.
- Improve soil health by reducing erosion and increasing water infiltration.
- Contribute to climate regulation by storing carbon.

WOOD LOTS

Woodlots on agricultural land provided various benefits, including timber and fuel wood. Many were created from land that was too rocky, wet, or distant for cultivation, or were remnants of previously larger, cleared forests.

Seven historic wood lots still exist in Montgomery Township, covering over 90 acres. The largest include:

- Pike Run: 39 acres
- Cherry Valley: 17 acres
- Skillman Rd. (near MHS complex): 16 acres
- Skillman Rd. (north of Skillman Park): 11 acres

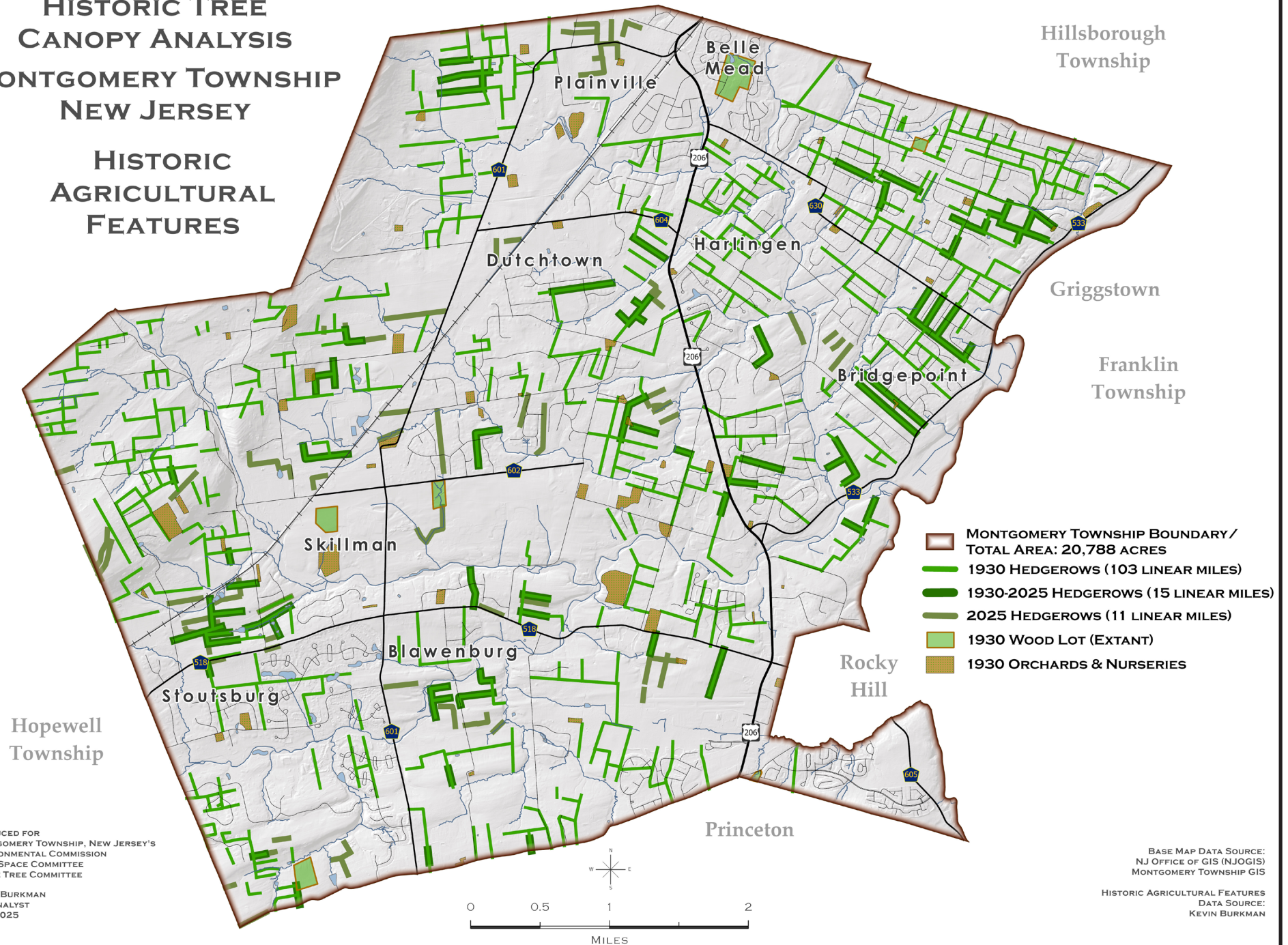
These wood lots contain some of the oldest trees in the township and provide a look at the historic tree matrix, during its agricultural period. They also support wildlife and protect soil

ORCHARDS/NURSERIES

There were no less than 216 acres in Montgomery devoted to orchards and nurseries- virtually none can be detected today.

HISTORIC TREE CANOPY ANALYSIS MONTGOMERY TOWNSHIP NEW JERSEY

HISTORIC AGRICULTURAL FEATURES



HISTORIC AGRICULTURAL FEATURES ANALYSIS

SOURLAND VIEW PRESERVE

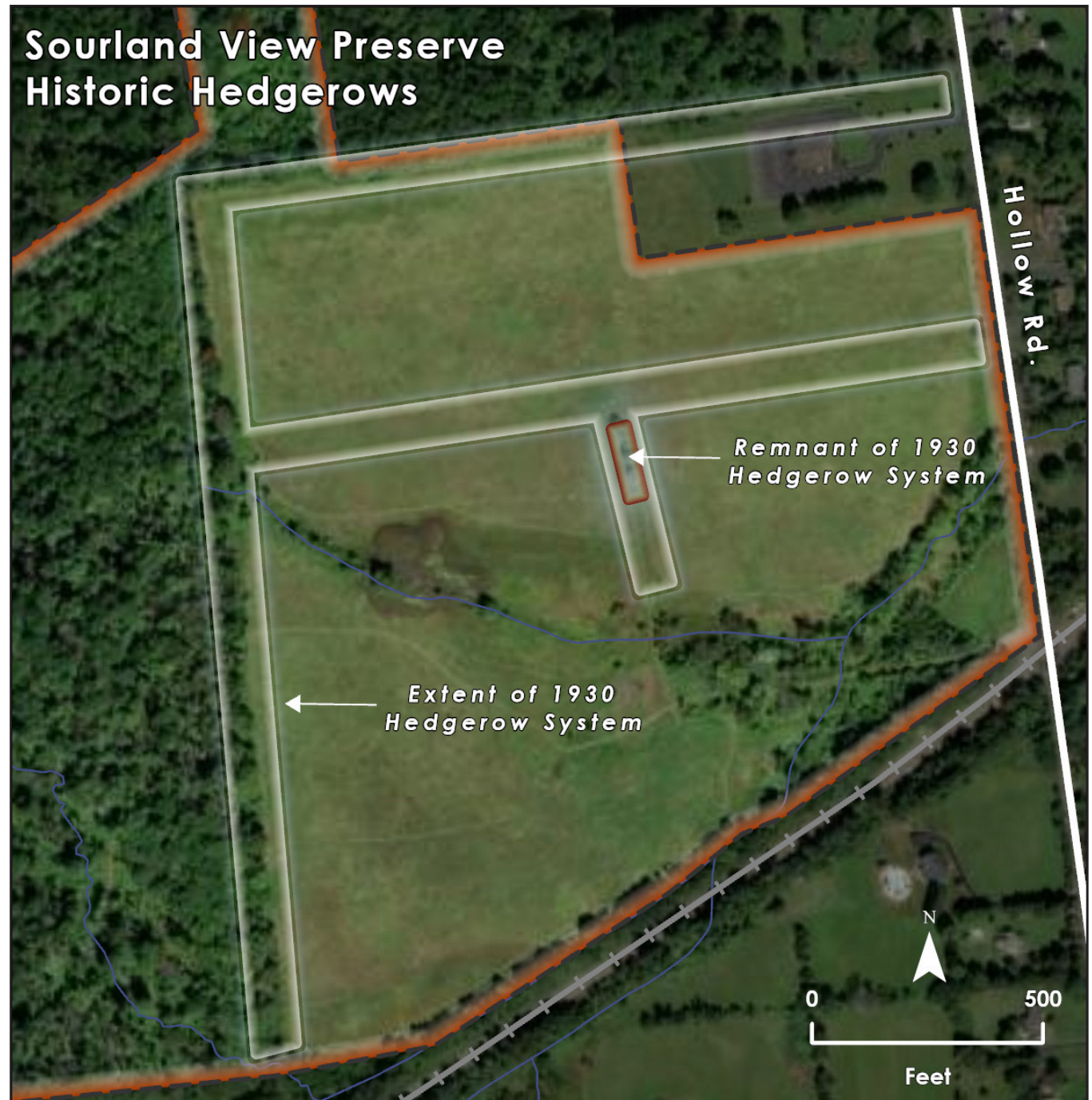
The township's proposed Sourland View Preserve was once home to several hedgerows, which have largely vanished.

A hedgerow that ran directly north/south in the middle of the fields has been largely subsumed by the modern transitional tree canopy to the west; it is possible that some of the original hedgerow trees (now nearly 100 years old) can be seen there.

Another "T" shaped hedgerow system to the east has largely disappeared, with the exception of a short north/south section clearly seen on aerial imagery, and in situ.



Remnant of the preserve's only remaining hedgerow, approximately 100 feet long, in the middle of the fields.



HISTORIC AGRICULTURAL FEATURES ANALYSIS

DEAD TREE RUN RD. HEDGEROWS

The corner of Dead Tree Run and River Roads is home to one of the township's agricultural open space parcels. It features a series of three hedgerows, two of which (north and middle) date back to 1930.

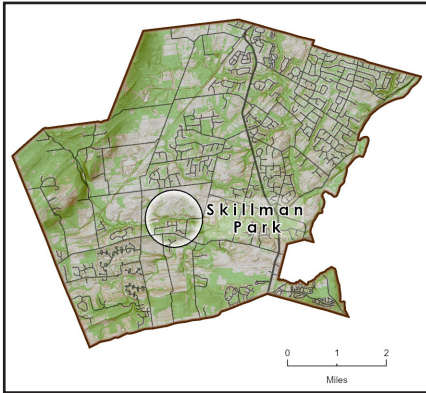
At 2,844 feet, the northern hedgerow is one of the longest, continuous hedgerows in Montgomery.



View from middle hedgerow, looking north.

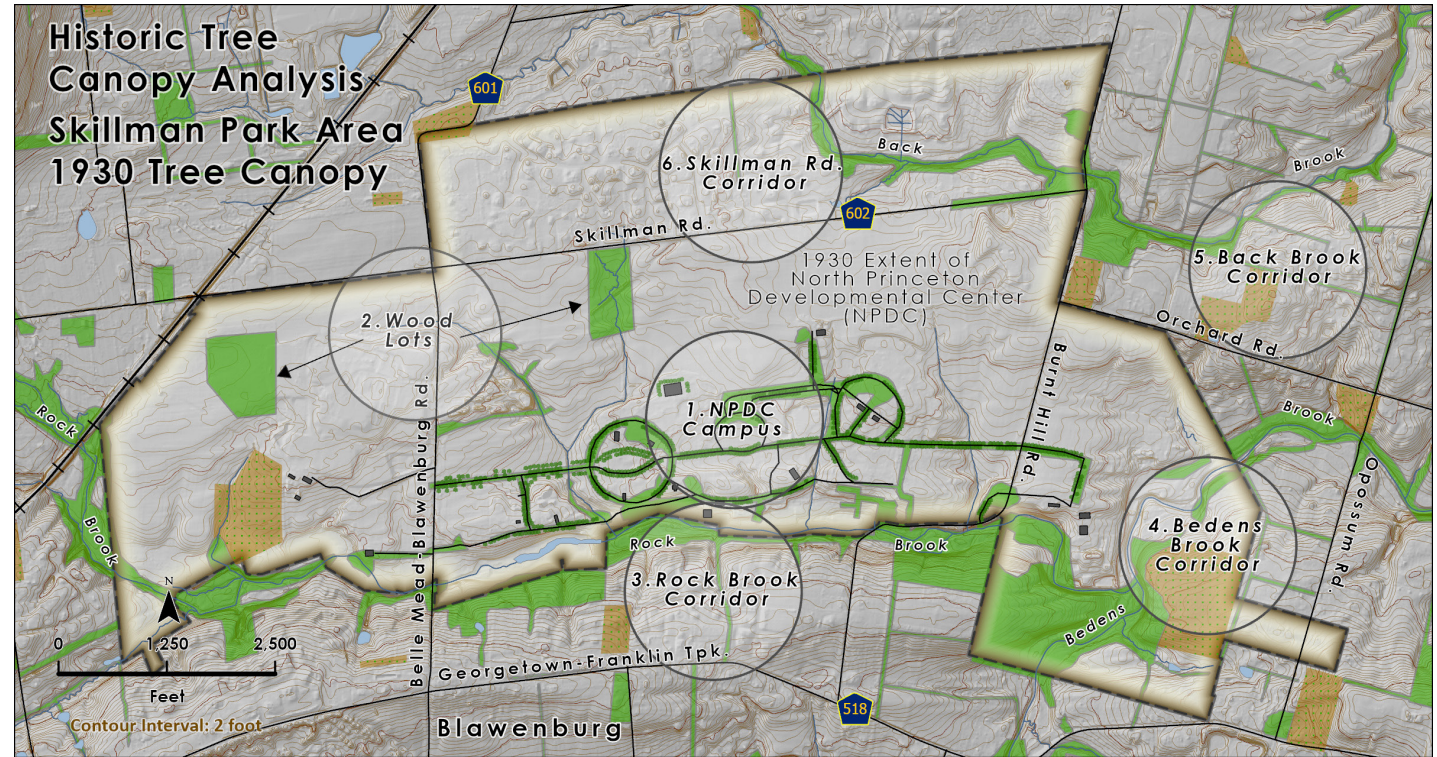


REGION OF SPECIAL INTEREST: 1930 TREE CANOPY OF THE SKILLMAN PARK AREA



The state acquired six farm properties from 1889 to 1920, totaling 1,097 acres, to create the New Jersey State Village for Epileptics, designed to be a self-sufficient community. Home to a succession of state mental health hospitals, commonly known as the North Princeton Developmental Center, the site closed in the 1990s; a portion of it became Somerset County's Skillman Park in 2015.

Early 20th century landscape architect Charles Leavitt designed the original village, introducing a new land use type to the township: institutional. Much of Leavitt's original design can still be seen, in the form of tree-lined roads; some of these trees are more than 100 years old.

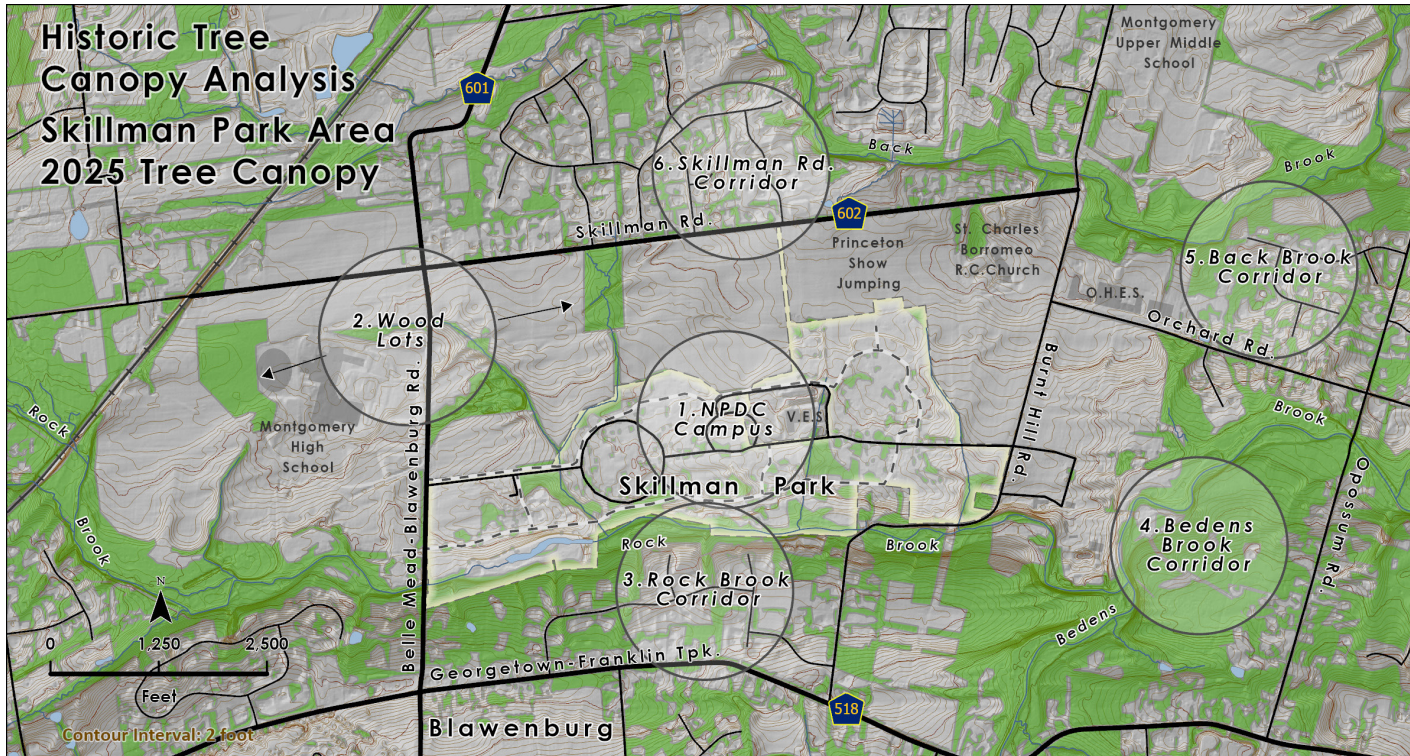


The extent of the Skillman Park Area map covers 3,245 acres; only 401 acres were detected as tree canopy, while the balance of the land cover consisted almost entirely of open agricultural land, including several orchards/nurseries.

1930 Sites of Note:

- 1. NPDC Campus:** Home to Leavitt's original tree allees.
- 2. Wood Lots:** Located south of Skillman Road, measuring 27 total acres.
- 3. Rock Brook Corridor:** One of the longest, most continuous riparian zones in the township in 1930.
- 4. Bedens Brook Corridor:** Little over 100 acres of tree canopy in SE corner of the NPDC.
- 5. Back Brook Corridor:** Excluding a section near Burnt Hill Rd., this corridor provides scant canopy.
- 6. Skillman Rd Corridor:** Except for a riparian zone along Back Brook, this area was open agricultural land, with little tree canopy.

REGION OF SPECIAL INTEREST: 2025 TREE CANOPY OF THE SKILLMAN PARK AREA



Early 20th century aerial photo of the NPDC looking east. Allees and other trees can be clearly seen.

(Azmy Architects)



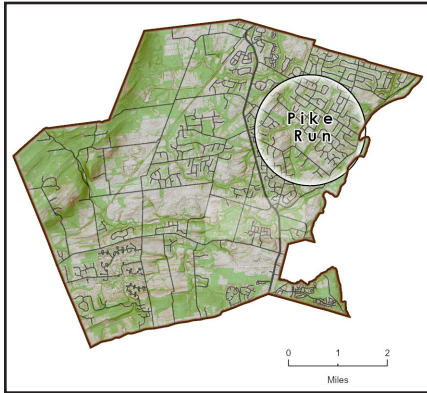
Remnant of an oak allee along the east end of Main Blvd.

1930 Sites of Note Assessed in 2025:

- 1. NPDC Campus:** Much of Leavitt's design remains intact, including allees.
- 2. Wood Lots:** Both are still largely intact in 2025.
- 3. Rock Brook Corridor:** Tree canopy has expanded its width greatly, particularly to the west, as it climbs Sourland Mountain.
- 4. Bedens Brook Corridor:** Over 250 acres of canopy has expanded, as far as Cty. Rt. 518 to the south, and east to Opossum Rd. and beyond.
- 5. Back Brook Corridor:** Slight expansion of tree canopy.
- 6. Skillman Rd Corridor:** Significant if scattered canopy expansion, as a result of suburbanization north of Skillman Rd.

The tree canopy of the Skillman Park area has significantly increased since 1930: 1,155 acres now cover this map extent, tripling its extent.

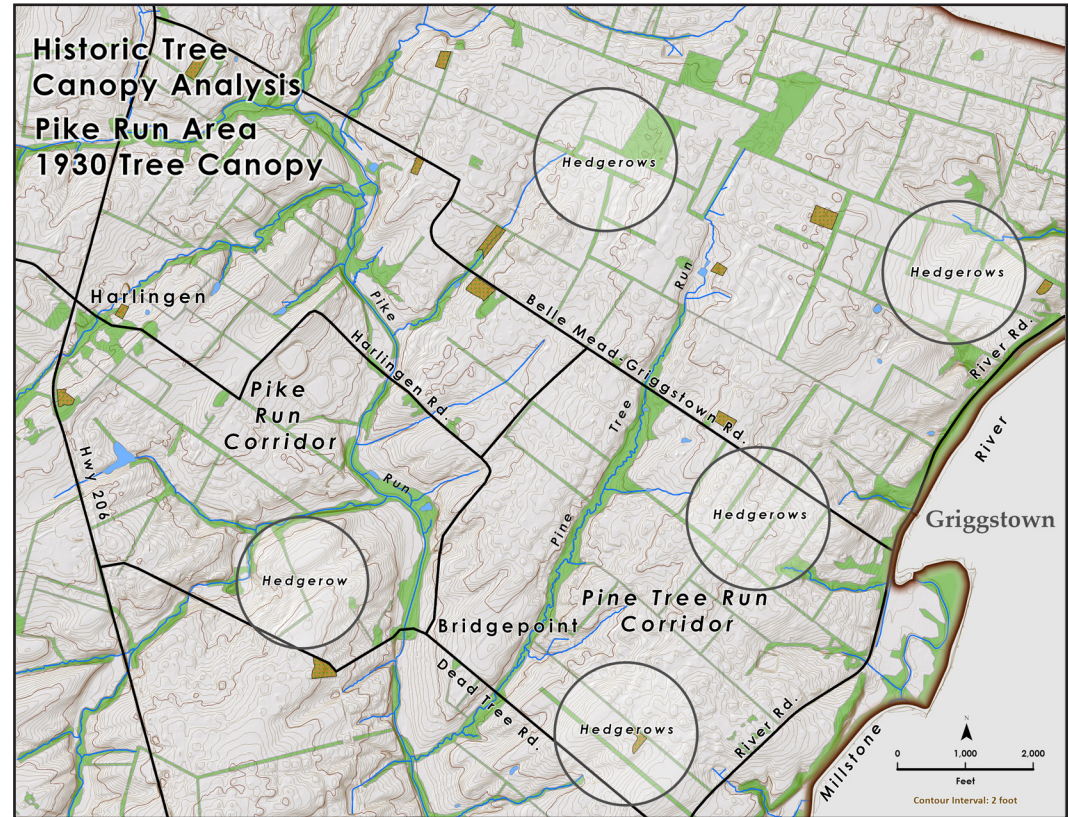
REGION OF SPECIAL INTEREST: 1930 TREE CANOPY OF THE PIKE RUN AREA



The Pike Run area is located in the northeast corner of the township, bounded by US Route 206 to the west and the Millstone River to the east. It is drained primarily by Pike Run and its tributaries: Cruiser Brook, Back Brook and Dead Tree Run.

In 1930, most of the tree canopy of the area, which was very sparse, was found along these streams, as well as the Millstone River. The remaining tree canopy was found in agricultural hedgerows, which criss-crossed the area in all directions.

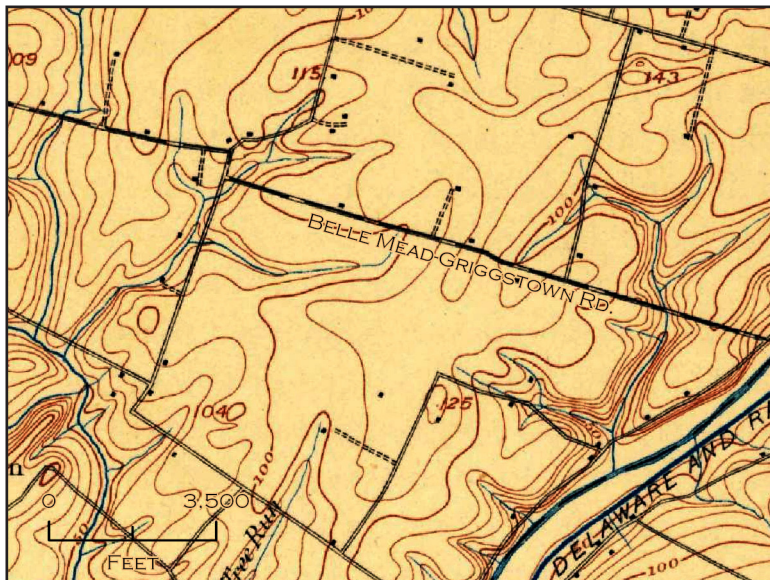
The map extent covers 4,454 acres; only 577 acres of tree canopy existed here in 1930.



1930 Sites of Note:

Hedgerows: Pike Run was home to the highest concentration of hedgerows in Montgomery Township, and some of the longest, most continuous were more than a mile long, due to the relatively few roads that crossed the landscape in 1930.

The map at left is a section of a USGS 1906 topographic map representing eastern Montgomery Township. With the exception of a few roads, farms and associated buildings, the area was largely undeveloped.



REGION OF SPECIAL INTEREST: 2025 TREE CANOPY OF THE PIKE RUN AREA



The land cover of the Pike Run area has been completely transformed from 1930's agriculture, to an almost entirely subdivided landscape of suburban houses, roads and notably, tree canopy.

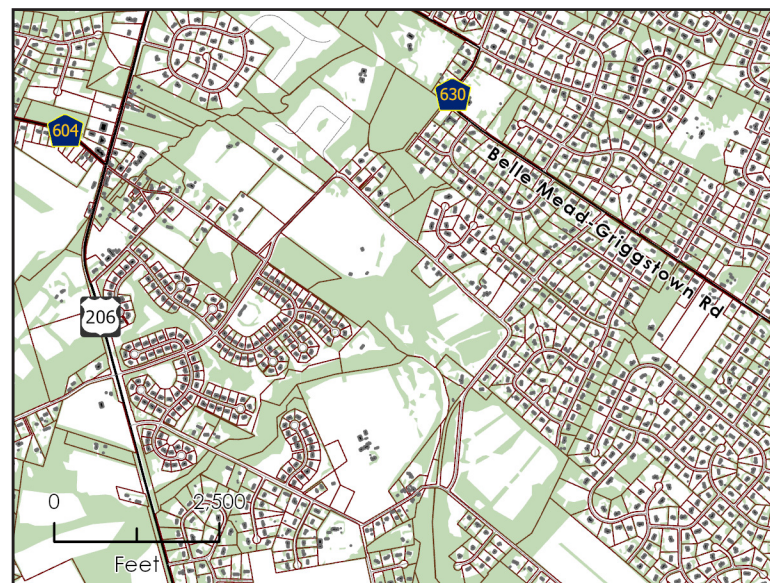
This suburbanization has led to a proliferation of tree planting over the past 50 years- while fragmented due to the presence of residential infrastructure, it nonetheless has created a tree canopy that is home to fauna which favor this habitat, including many species of birds and the insects they rely on, as well as squirrels and chipmunks.

The Pike Run area tree canopy has markedly increased since 1930: 1,753 acres now cover this map extent, an increase of nearly 1,200 acres, tripling its range.

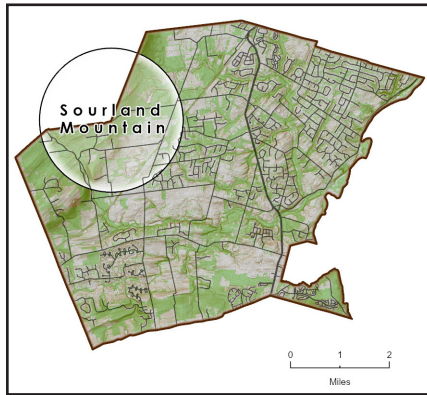
1930 Sites of Note Assessed in 2025:

Hedgerows: While decades have passed since Pike Run's agricultural land use, remnants of its hedgerow system can still be seen, either subsumed in the area's leafy suburban neighborhoods, or on the few parcels where agriculture is still active.

The map at right demonstrates the modern subdivided nature of the Pike Run area. In the 1930's only a handful of large, agricultural parcels would have been found here; they have since been replaced by hundreds of residential parcels, most of which are less than one acre, but have provided an opportunity for tree canopy expansion.

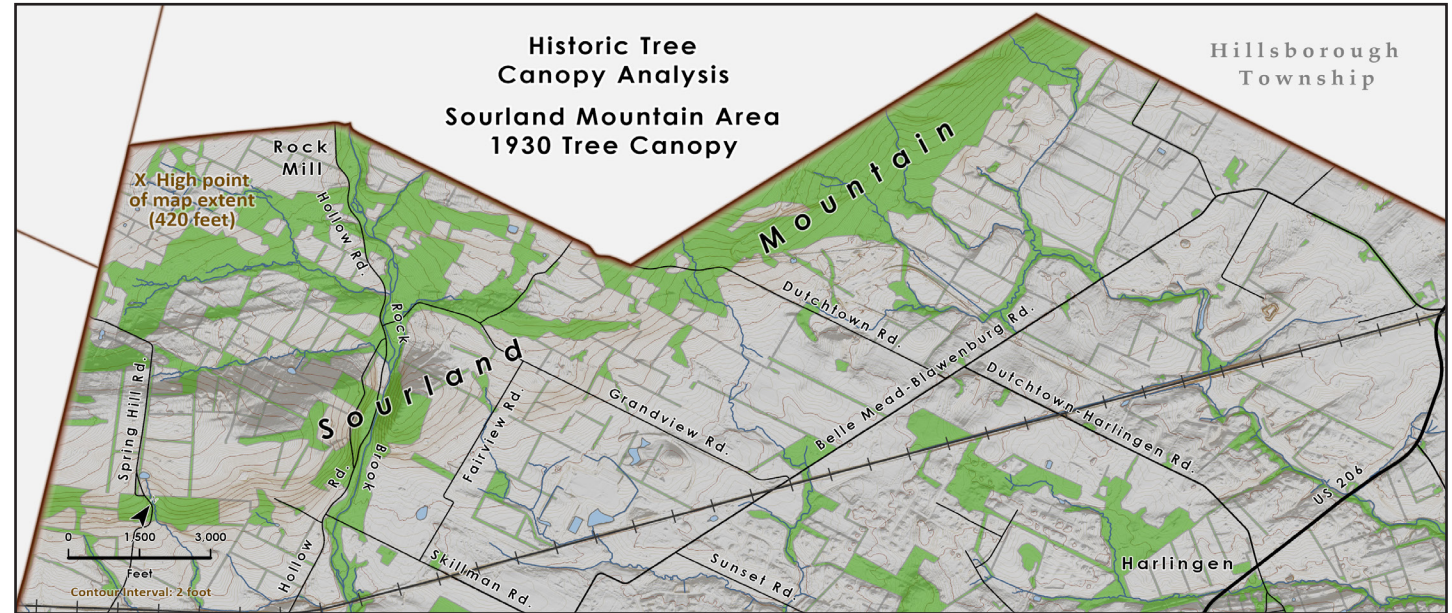


REGION OF SPECIAL INTEREST: 1930 TREE CANOPY OF THE SOURLAND MOUNTAIN AREA



A small portion of the relatively steep ridge called Sourland Mountain resides within the boundary of Montgomery Township, along its northern edge. Rising 300-400 feet above the valleys, the ridge was once home to tenuous agricultural activities, including a lattice of hedgerows. The upper reaches of the mountain contain steep hollows and wetlands, on a bed of exposed diabase rock.(unsuitable for large-scale agriculture); these areas were home to most of the 1930 tree canopy.

The map extent (above right) covers 7,024 acres; the tree canopy in 1930 encompassed 1,678 acres of it.

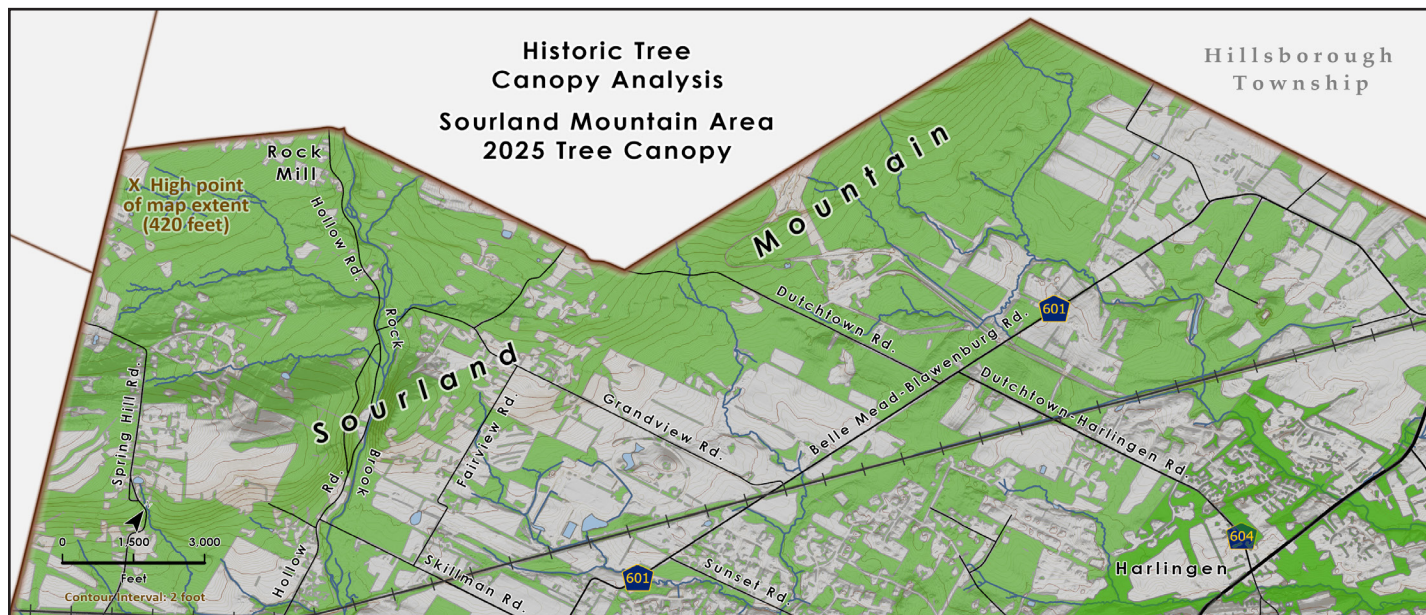


Note: Map frame is rotated -35° to accommodate layout.

Rock Mill was once a small village near the top of Sourland Mountain; it ceased to exist by 1930. The map at right demonstrates the open, agricultural nature of the area, as well as the distinctive hedgerows, large wood lots, and contiguous tree canopy (color enhanced in green) along Rock Brook/Hollow Rd.



REGION OF SPECIAL INTEREST: 2025 TREE CANOPY OF THE SOURLAND MOUNTAIN AREA



Note: Map frame is rotated -35° to accommodate layout.

By mid century, agriculture was largely at an end on Sourland Mountain, as fields transitioned first to scrub land cover, then hardwood forests. Given the modern environmental issues (wetlands, septic and water supply), residential development here is more limited than the elevations below. This has led to a significant increase in tree canopy since 1930, along the top of the ridge as well as along the streams and hollows leading down its flanks.



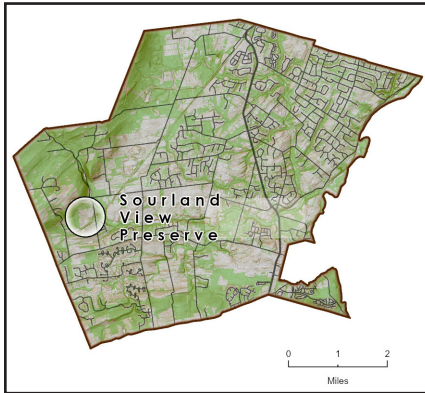
The aerial map at left illustrates the dramatic land cover change to the Rock Mill area; nearly all of the once open agricultural land has transitioned to the most contiguous tree canopy in the township.

Since 1930, the tree canopy of Sourland Mountain within the Montgomery Township boundary has increased by nearly 2,400 acres, more than doubling its size.



Representative land cover of Sourland Mountain; wooded wetlands and bouldered streams.

REGION OF SPECIAL INTEREST: 1930 TREE CANOPY OF THE SOURLAND VIEW PRESERVE AREA



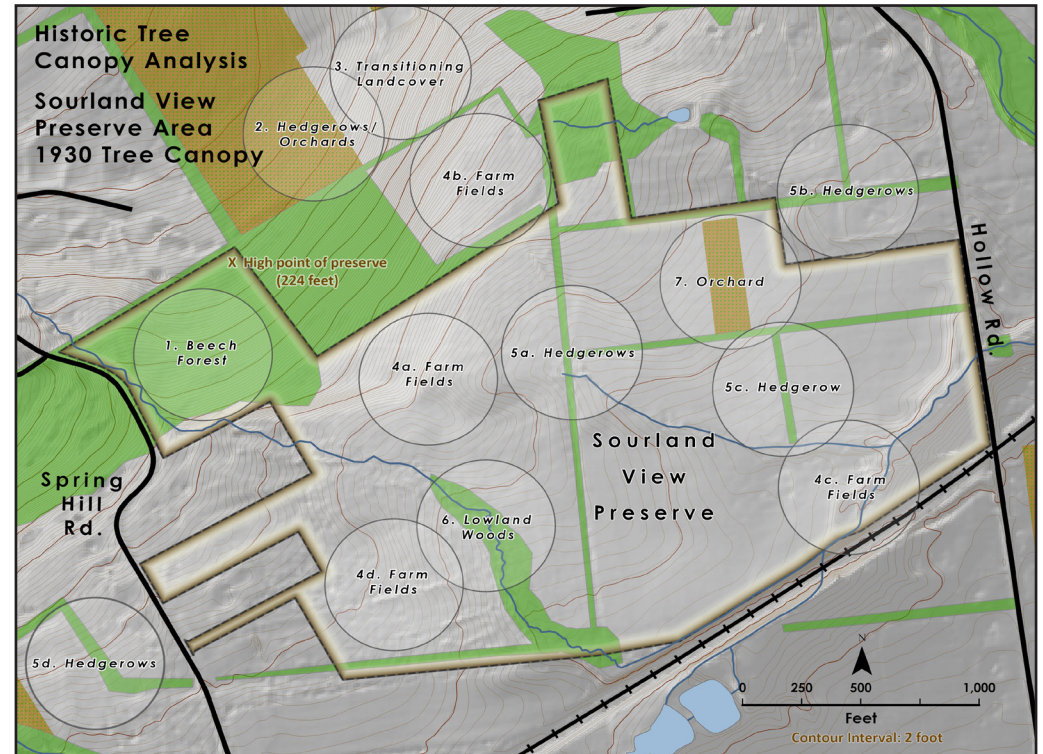
The proposed Sourland View Preserve, part of the township's open space system, comprises 120 acres between Hollow and Spring Hill Roads, in the western section of Montgomery.

The western part of the preserve (called the Spring Hill Woods) is a late transitional hardwood forest (around 50 years old); this section was open agricultural area until the 1970's, when it began to transition to first scrub land, then transformed into the forest we see today. The eastern side was farmed until very recently; left fallow for the past 6 years, it has begun to transition to scrub land.

The extent of the Sourland View Preserve Area map covers 347 acres; only 59 acres were detected as tree canopy, while the balance of the land cover consisted almost entirely of open agricultural land, including orchards and hedge rows.

1930 Sites of Note:

- 1. Beech Forest:** This particular tree canopy was a mature forest in 1930, and extended over Spring Hill Rd. for 1,000 feet, across both sides of the road.
- 2. Hedge rows/Orchards:** At 18 acres, this was one of the largest contiguous orchards of the period.
- 3. Transitioning Land Cover:** In 1930, this land cover was detected as *transitioning or shrub*; open agricultural land transforming into high grass, red cedar and other shrubs, the first stage of tree canopy formation.

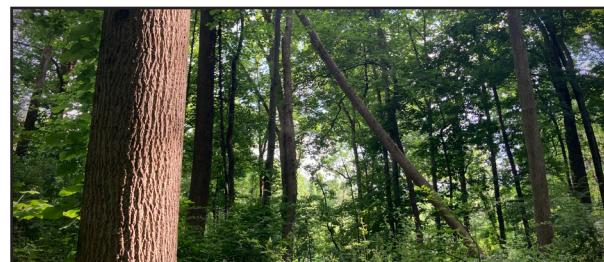


4. Farm Fields: Four farm fields are seen within the boundary of the current preserve, measuring about 100 acres in total.

5. Hedgerows: Numerous hedge rows, over 1,000 feet in length, are scattered across the landscape.

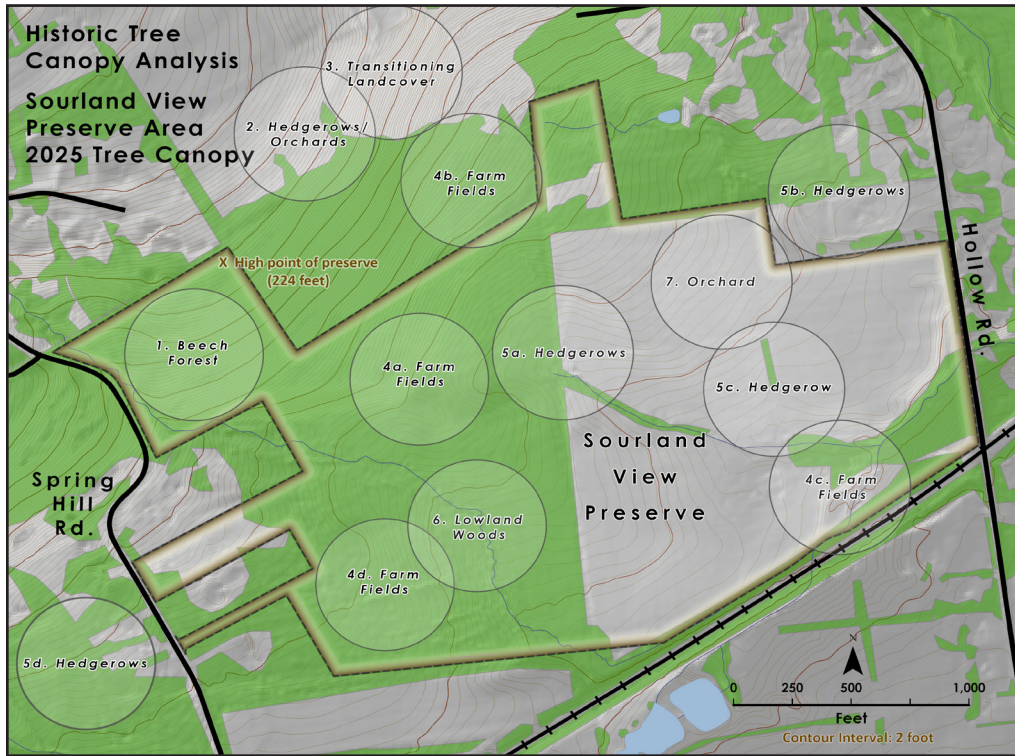
6. Lowland Woods: This narrow tree canopy along an unnamed tributary of nearby Rock Brook was 4 acres, and located in the lowest, wettest part of the preserve.

7. Orchard: In 1930, a small orchard was detected on the brow of the farm's northern slope.



*Modern photo of the Lowland Woods site. The canopy here is currently dominated by towering tulip poplars (*Liriodendron tulipifera*).*

REGION OF SPECIAL INTEREST: 2025 TREE CANOPY OF THE SOURLAND VIEW PRESERVE AREA



d. The farm fields here on a steep rise have been transformed into a hardwood forest.

5. Hedgerows:

a. This hedgerow has been subsumed by the hardwood forest, which formed to the west when agriculture ended mid-century.

b. Remnants of this hedge row can still be seen on the northern edge of the KHJW church on Hollow Rd.

c. Only a tiny sliver of hedge row exists in fields once crossed by them.

6. Lowland Woods: The canopy here has greatly expanded in all directions, forming a contiguous forest that ranges to the preserve's southern border and Spring Hill Rd.

The Sourland View Preserve area tree canopy has greatly increased since 1930: 180 acres now cover this map extent, tripling its range.

1930 Sites of Note Assessed in 2025:

1. Beech Forest: Under threat of beech leaf and bark disease, this canopy extent still exists, with some of the trees towering more than five stories.

2. Hedgerows/Orchards: These agricultural features have been subsumed by suburban land cover, in the form of a sweeping ornamental lawn.

3. Transitioning Land Cover: The scrub land of 1930 has been replaced by suburban lawn.

4. Farm Fields:

a. This area has been transformed into a hardwood forest. It also includes a tall stand of native white pines (*Pinus strobus*).

b. Transformed into hardwood canopy.

c. These 1930 farm fields near the preserve entrance have been reshaped into a transitional land cover, covered with mostly invasive shrubs and plants.



Hardwood thicket along stream in the center of the preserve fields.

HISTORIC TREE
CANOPY ANALYSIS
MONTGOMERY TOWNSHIP
NEW JERSEY
1930-2025 CANOPY

HISTORIC TREE CANOPY ANALYSIS
MONTGOMERY TOWNSHIP, NEW JERSEY

PRODUCED BY KEVIN BURKMAN, GIS ANALYST,
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ENVIRONMENTAL COMMISSION
OPEN SPACE COMMITTEE
SHADE TREE COMMITTEE
VAN HARLINGEN HISTORICAL SOCIETY

NOVEMBER, 2025

PROJECT DATA SOURCES:

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP)
NJ OFFICE OF GIS (NJOGIS)
UNITED STATES GEOLOGICAL SURVEY (USGS)

All terrestrial photographs by the author

- MONTGOMERY TOWNSHIP BOUNDARY /
TOTAL AREA: 20,788 ACRES
- 1930 TREE CANOPY: 4,025 ACRES
(19% OF TOWNSHIP AREA)
- 2025 TREE CANOPY: 9,639 ACRES
(46% OF TOWNSHIP AREA)
- 1930-2025 TREE CANOPY OVERLAP:
3,184 ACRES

"Some for one purpose, and some for another, liketh, loveth, getteth, and useth Mappes, Chartes, & Geographicall Globes."

John Dee, 16th century mathematician and astronomer to Queen Elizabeth I

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SHADE TREE COMMITTEE

KEVIN BURKMAN
GIS ANALYST
JULY 2025

BASE MAP DATA SOURCE:
NJ OFFICE OF GIS (NJOGIS)
MONTGOMERY TOWNSHIP GIS

TREE CANOPY DATA SOURCE:
KEVIN BURKMAN

