Managing Your Woodlands:
A template for your plans for the future

Owner(s) Name(s) Warren Brown, Sheryl Brown, Lauren Brown, Megan Brown / BROWN FARMS

Owner(s) Mailing Address(es) BROWN FARMS
34 Wellgate Drive
Hudson Ohio 44236

Owner(s) Phone Number(s) (330) 650-0340

Owner(s) Email(s)

Owner(s) Signature(s) Sheryl J. Brown Lauren R Brown Megan R. Brown

Plan Author Warren J. Brown

Plan Author Mailing Address above

Plan Author Phone Number (330) 650-0340

Plan Author Email

Plan Author Signature

Date of Original Plan Completion May 1, 2019 **Revision date(s)**

Please note: Informal updates to the plan can be made with handwritten notes. Be sure to include a date and initial these notes throughout the management plan.

NRCS Natural Resources Conservation Service

TABLE OF CONTENTS

This template should be used in association with the landowner and the forester guides which include detailed instructions on how to correctly complete the template to develop a management plan that will meet the requirements for the American Tree Farm System (ATFS), Natural Resources Conservation Service (NRCS) and the US Forest Service. Please refer to the guide when working with your forester or natural resource professional to develop your plan.

This template was developed by the US Forest Service, Natural Resources Conservation Service (NRCS), and the American Forest Foundation's American Tree Farm System (ATFS) using information from the following state joint Forest Stewardship, ATFS and NRCS templates:

- Mississippi Forest Stewardship Management Plan developed by the Mississippi Stewardship Forest, Mississippi Forestry Commission and the US Forest Service
- Missouri Common Forest Plan Format developed by the Missouri Department of Conservation and NRCS
- Montana Forest Stewardship Plan/Tree Farm Plan developed by the Montana Forest Stewardship Program, Montana Tree Farm Program, Montana State University Extension, Montana DNRC, US Forest Service and NRCS
- Oregon Forest Stewardship Plan Template develop by Oregon State University Forestry Extension Program

Thanks to the following reviewers: Tim Albritton, Dean Berry, Karen Bennett, Jill Butler, Dave Casey, Linda Casey, Jim Cathcart, Bill Chaney, Wade Conn, Dean Cumbia, Robert Etheridge, Jonas Feinstein, Carri Gaines, Nate Goodrich, Andy Henriksen, Joe Holmberg, Debra Huff, Gary Johnson, Bob Logar, Leah MacSwords, Naomi Marcus, Carol Nielsen, James Poole, Robert Radspinner, S.R. Raymond, George Rheinhardt, Steve Smith, Raymond Sowers, Rich Steensma, Pam Synder, Rob Wait, Doug Wallace, and Daniel Wand.

Property Description

Legal property description This forest is dispersed generally along the shared incorporated lines the cities of Stow, Hudson, and Boston Township.

The farm is part of the headwaters for two watersheds; the Brandywine and the Mudbrook - both are in Northern Summit County

Nearest city or town Hudson, Stow, Boston Township, Ohio

Tax Parcel Number (*optional*) _____

FSA Farm and Tract Numbers (*if applicable*) 77-742

GPS coordinates (*optional*) _____

Total ownership acreage 99.21 **Total forested acreage** 96.21

Total acreage covered by this plan 96.21

Number of unique stands of trees 9

Do you reside on the property? ☐ Yes ☑ No

Basic topography (estimate percent of total acreage that is)

Complex topography (many steep ravines and aspects) ☐

Simple topography (few ravines and changes of aspect) ☑

Percent of land that is Flat (<5% grade) 97 Gentle Slope (6 to 20% grade) 2

Steep Slope (> 21% grade) 1

Road Conditions (check): ☑ Excellent (80% accessible) ☐ Good (at least 50%)

☐ Fair (at least 25%) ☐ Poor (less than 10%)

Estimated improved road length (bulldozed with graveled surface) 800 feet

Estimated unimproved road length (bulldozed with but original soil/bedrock) none

Which watershed is the property located in (include appropriate watershed unit for your state):

Brandywine and Mudbrook

Property History

We started Brown Farms in 1986. An area of approximately 100 acres, the farm is a collection of 9 woodland stands with lakes and streams dispersed generally along the shared incorporated lines of the cities of Stow, Hudson, and Boston Township.
Our stands are all unique to each other. Our southern most woodlot, " The Creek Runs Through It " is the last 400 feet of the Meadowbrook Creek at its terminal junction with Meadowbrook Lake in the city of Stow. During the 1990's, Brown Farms cleaned the debri that had been dumped as trash as the site was once a homestead at the creek's edge. Our family considers this to be a Special Site - a place to be preserved for its natural beauty and function.

In 1994, we purchased our "McDonald's Farm", a vacant open field from the McDonald's Corp. This property, called sublot No. 3, includes the storm water basin for the McDonald's restaurant and the Valvoline service station. We hope to demonstrate the advantages of growing small plantations within the area of the storm water systems. None of the corporations do this and our thought is that they should.

Our northern most woodlot in the Mud Brook watershed includes a lake adjacent to Rt. 8 in the city of Hudson. In 2006, consulting firm Arcadis used this lake for their cover photo of the Mud Brook Watershed Study. Along with a picture of our lake, a caption read " Imagine the result ".

Over the years, Brown Farms has worked diligently to protect these headwaters.... detail is shown inside this management report.

Forest Management Goals

To be fertilizer free.
Maintain and improve the productivity of these woodlands. Grow the tree species that are suited for the soil types present.
Grow tree species that will provide products for sale, per the requirements of the Current Agricultural Use Law.
Manage the property for all other opportunities that exist in a forest ecosystem including recreation, wildlife management, soil and water management, air quality management, and other compatible conservation uses.
Conserve the soil and water during forest management activities by maintaining practices that will prevent soil erosion.
Demonstrate new ways to use the forest as a component of urban landscape design.
Use the forest to improve the aesthetics of the community.
Continue as an active member of the American Tree Farm System.

Forest Natural Resources Enhancement and Protection

This section relates to the natural resource elements found **throughout the entire property.** Some of the treatments related to these resources may qualify for federal and state incentive programs. For this section, include appropriate activities and treatments in the Management Activity Schedule and Tracking table as well as on the map(s). Complete the Activity Schedule and draw and label the areas of management on the map if using this plan as part of an incentive program application. There is no need to repeat this information in the stand specific section.

For each resource element, consider:

1. *What treatments/monitoring/protection are planned?*
2. *When will you implement treatments (season, year), follow-up activities, etc?*
3. *Where will the management take place: entire stand, part of a stand, acres?*
4. *Do you have applicable permits, professional assistance, and applications for the incentive programs?*

Protect Special Sites & Social Considerations

Special sites

As mentioned earlier in the History section, our " The Creek Runs Through It " farm is a Special Site. We want to restore this section of the Meadowbrook Creek.
The pond areas on our farm are also Special Sites. Our stand " The Lakes Forest at Seasons Road " has two ponds that we monitor for quality on a daily basis. These waters flow east and then south to Wyoga Lake in Stow. Beyond the water quality protection, these sites improve the aesthetics of the community; they offer a beautiful view for tens of thousands of motorists each day.
Each day, we will remove the litter from these sites. Also perform a daily inspection of all stand road frontages for damage and litter. It is critical to show the forest as a means of improving the quality of life.

The attached file of past actions should be used as a guide for future action required to protect these assets.

Adjacent stand or ownership concerns

History has shown that a regular patrol of the property lines is smart business. Some neighbors do bad things. Because Brown Farms has miles of property lines , we recommend adjusting the frequency of inspection somewhat to the current rate of incidents.

The dumping by Mr. Jura in Boston Township is a good example of a neighbor that should be monitored on a daily basis. Again, the attached file of past actions should be used as a guide for future action required to protect these assets. A review of the file shows the public agencies and departments that have helped to stop Mr. Jura's filling of wetland area.

Recreation

Our goals for the forest include many forms of recreation. Camping, Hunting, Hiking, Interacting with the wildlife, Fishing, and Food gathering are all included in the list of our forest activities. Improving the wildlife habitat will go a long way to making these activities more enjoyable. See the stand activities for these directions.

Access

Brown Farms has one gravel access road in excellent condition; we have replanted all of our skidder paths from past harvests.

Air, Water, and Soil Protection

*What **goals** do you have, or what **steps will you take** to conserve, protect and enhance your forest's air, water and soil resources?*

Soil protection

We don't use heavy equipment except during harvesting; we prohibit all four wheeling.

At the extreme grades of " The Pine Plantation of Seasons Road ", we have reseeded those areas where the soil was made bare. During construction of the interstate, the contractor's seed did not survive the drought conditions and a second seeding was required.

Roads

Roads are minimized.

Streams, wetlands, ponds, lakeshore

Daily inspections for all water features. We follow Best Practices for the protection of our stream banks and shore lines. The farm uses no fertilizer.

We have used the services of many public agencies to protect these natural resources; the files attached provide that detail.

Effects of Natural Disasters

Droughts are tough on the seedings. We generally recommend using gallon sized water jugs to dampen the first year plantings.
It seems that every year we get that late Spring snow that snaps pine branches. Fall trimming of the branches can help.

Rangeland Resources (if applicable)

(optional) **Carbon sequestration**

As mentioned earlier, " The McDonald's Farm " is purposely located at the drive thru lane where engines are running. We are promoting the notion that the forest be present in order to reduce the carbon foot print.

Fish, Wildlife and Biodiversity

Describe the resources on your property and the activities you are planning to accommodate your goals.

Fish &Wildlife

We are planning to improve the wild life habitat throughout the farm. Given the decline in the turkey population and the theory that habitat loss is to blame, we will provide some disturbance at the forest floor. We can help feed the turkey and the deer by providing tall grass for feeding and some brush for cover.

After each hard rain, we need to clean the Meadowbrook Creek as a lot of trash flows down stream with the storm surge.

State and Federal threatened or endangered species - plants or animals

We are not aware of any on our farm.

Management of Forest Resources

Protection from Pests

Beaver damns have been removed at both " The Beaver Alley Farm " and " The Barlow Road Farm ".
The white pine weevil still requires annual spray and leader removal; " The McDonald's Farm " should get extra time for treatments.
We are not expecting to save our Ash and we will thin them out when best.

Reforestation and Afforestation

1998 Harvest at The Barlow Road Farm
Please refer to the attached file for details.

2010 Harvest at The Darrowville Farm
Please refer to the attached file for details.

All future harvests will be done with a pre-selected tree basis.

(optional) **Prescribed Fire/Burns**

Management Plan Implementation Constraints

Other

BROWN FARMS
34 Wellgate Drive
Hudson, Ohio 44236

Stand Level Information

For each stand, write what your management objectives are and a brief description of the stand and its current and desired future conditions as well as the management activities. Further detailed inventory/plot data can be included if desired.

Stand Objectives

Stand# Five **Acres** 25.82

Objectives:

As a head water for the Brandywine Watershed, this forest has much to contribute toward water quality. It can filter the fertilizers from the adjacent neighbors' residential yards. The wildlife is intense. Deer, bobcat, fox, beaver, and turkey live here. The beavers lives are short. We favor the various species of oak for it's food source.

Stand # Five Current Conditions

General description

This stand is a combination of upland and lowland sites. Pin oak, swamp white oak, black gum, and soft maple are present in the lower levels. On higher ground, red oak, beech, sugar maple, tulip, hickory, and white oak are growing. The upland soil type is poorly drained Mahoning silt loam,2 to 6 percent slopes (MgB). There may be better drained Ellsworth or Canfield silt loam along the west side. The wetter, flatter sites are poorly drained Mahoning silt loam, 0 to 2 percent slopes (MgA) and the nearly level, poorly drained Trumbull silt loam (Tr). The trees present are best suited for their areas.
Each day, we walk the stand and look for signs of dumping and inspect the water quality. We need to perform vine control, and as we thin, we favor the oak trees.

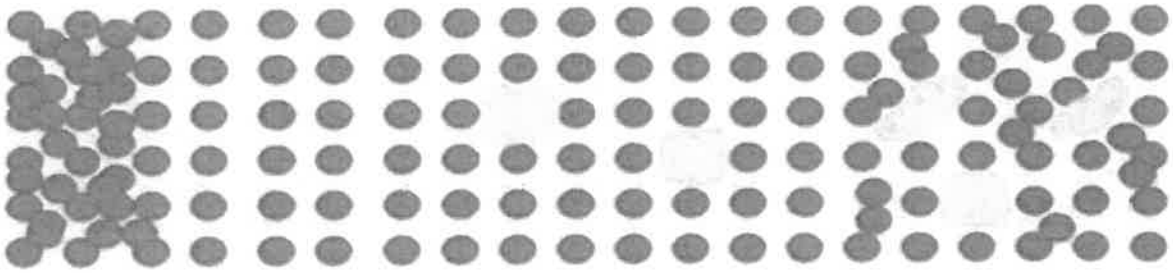
The City of Hudson does require us to maintain the water flow in the creek. Neither a beaver or a tree shall block the creek.

Current forest type and current age

Forest Type	Age
see above	all

Bird's-eye view of current stand condition (check one)

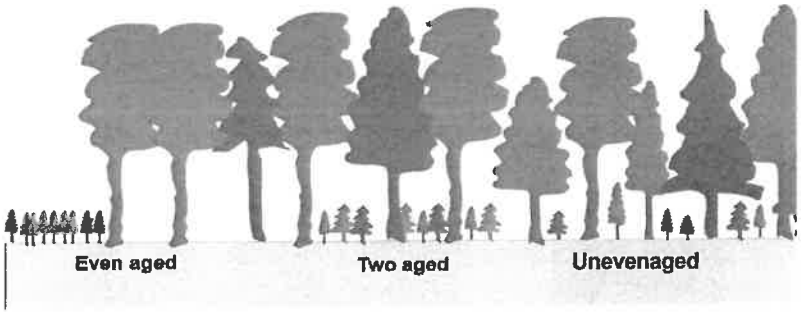
☑ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☐ Variable density spaced with openings



Current spacing (in feet) Large (>9"DBH) 25 (ft) Pole (5-8"DBH) 25 (ft) Seedling (<5"DBH) 10 (ft)

Size and shape of openings irregular 50 by 100 ft.

Current structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Stand # Five Desired Future Stand

Condition Desired forest type and expected longevity

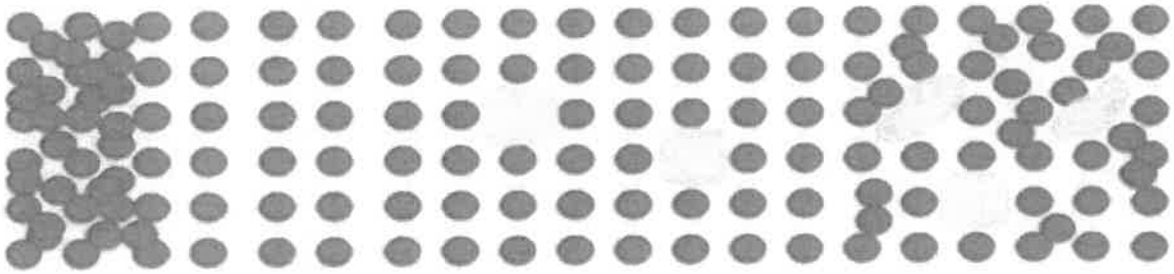
Forest Type	Age
favor oak, but all hardwoods are welcome	all

Desired species to naturally regenerate oak

Desired species to plant not required

Bird's-eye view of desired future stand condition (check one)

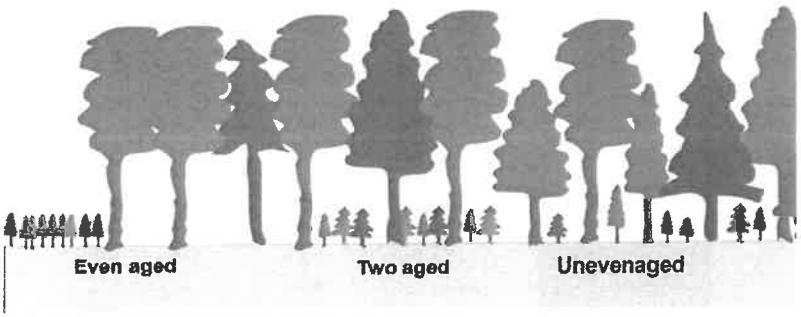
☐ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☑ Variable density spaced with openings



Desired spacing (in feet) Large (>9"DBH) 25 (ft) Pole (5-8"DBH) 25 (ft) Seedling (<5"DBH) 15 (ft)

Size and shape of openings same as current

Desired structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Other Desired Stand Descriptions:

Stand # Five Forest Management Activities

If a subset of the stand is being treated, the general area can either be described or identify the impacted areas on your map

Forest Health Management Activities

Vine control during the growing season. Thinning at the pole size level.

Harvesting

We harvested this stand in 1996.

Slash management

Post harvest activities

Permits

Best Management Practices

Monitoring

Daily inspection of the water quality. Inspect for dumping. Always be on the search for invasive species.

Add more pages as needed for each additional stand of trees.

Stand Level Information

For each stand, write what your management objectives are and a brief description of the stand and its current and desired future conditions as well as the management activities. Further detailed inventory/plot data can be included if desired.

Stand Objectives

Stand# Six Acres 20

Objectives:

THE PINE PLANTATION AT SEASONS ROAD The bulk of the seedlings planted are white pine, along with a few Austrian pines along the border shared with the gas company. The white pines were planted in 1996 under the Stewardship Incentive Program (SIP).
We want to improve the productivity of this once open field.

Stand # Six Current Conditions

General description

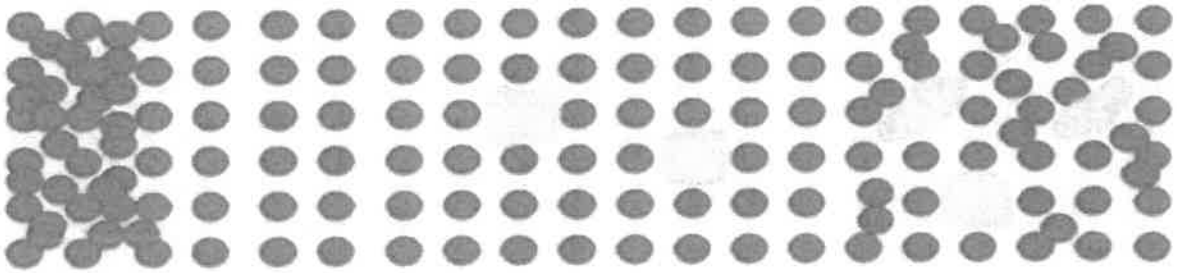
The plantation soil types include somewhat poorly drained Mahoning silt loam (MgB), moderately well drained Ellsworth silt loam (EIB), and also a slightly steeper 6 to 12 percent slope Ellsworth silt loam (E1C2). Woodland productivity is rated as fair to good for these three soils.

Current forest type and current age

Forest Type	Age
white pine	23 yrs.

Bird's-eye view of current stand condition (check one)

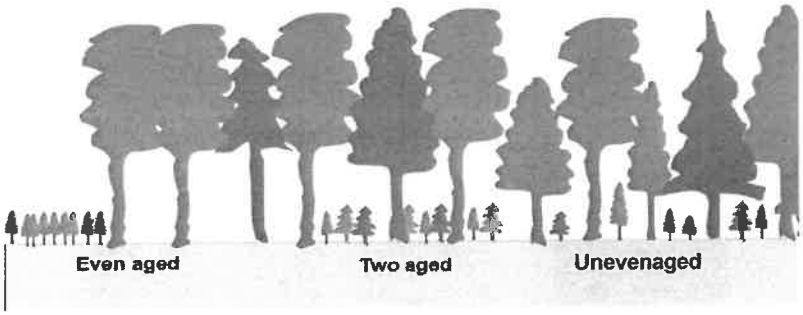
☐ Wild stand ☐ Evenly spaced ☑ Evenly spaced with openings ☐ Variable density spaced with openings



Current spacing (in feet) Large (>9"DBH)____(ft) Pole (5-8"DBH) 20 (ft) Seedling (<5"DBH) 30 (ft)

Size and shape of openings 20ft. by 20 ft.

Current structure:



☑ One canopy layer ☐ Two canopy layer ☐ Multi-layer/Unevenaged

Stand # Six Desired Future Stand

Condition Desired forest type and expected longevity

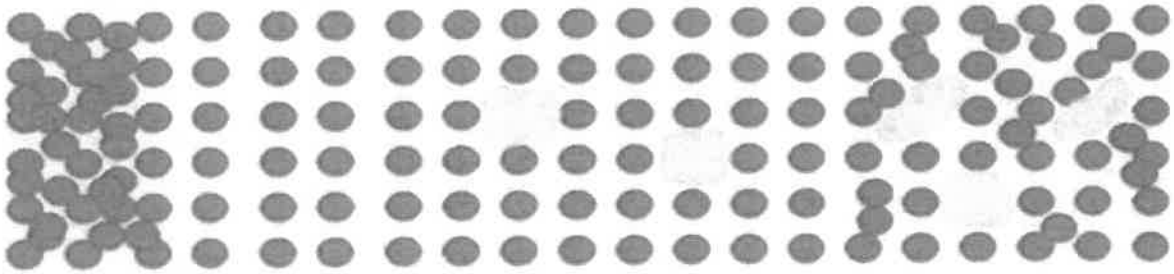
Forest Type	Age
white pine	all
natural hardwoods	all

Desired species to naturally regenerate pine and hardwood oak, cherry, hickory

Desired species to plant not required

Bird's-eye view of desired future stand condition (check one)

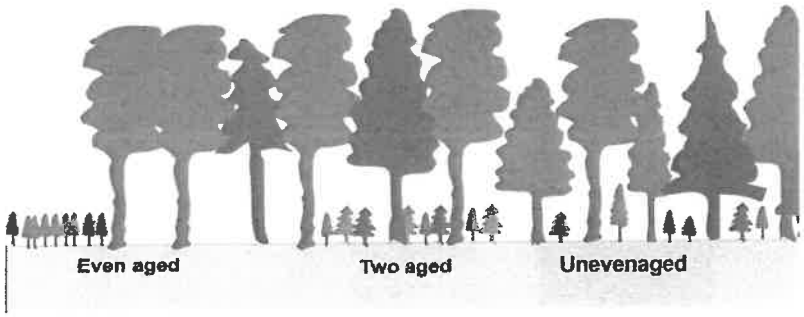
☐ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☑ Variable density spaced with openings



Desired spacing (in feet) Large (>9"DBH) 20 (ft) Pole (5-8"DBH) 20 (ft) Seedling (<5"DBH) 20 (ft)

Size and shape of openings 20 ft. by 20 ft.

Desired structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Other Desired Stand Descriptions:

Stand # Six Forest Management Activities

If a subset of the stand is being treated, the general area can either be described or identify the impacted areas on your map

Forest Health Management Activities

Crop thinning was done during 2016. Now, we will prune as required. Invasive American elm, ash, and aspen should be removed.

Stand Level Information

For each stand, write what your management objectives are and a brief description of the stand and its current and desired future conditions as well as the management activities. Further detailed inventory/plot data can be included if desired.

Stand Objectives

Stand# Seven **Acres** 3.47

Objectives:

THE HIGH POINT FARM AT SEASONS ROAD We hope to improve the product of this forest. Also, we can improve the aesthetics along Seasons Road by growing a better forest. This stand is adjacent to our other stands and contributes to the whole forest.

Stand # Seven Current Conditions

General description

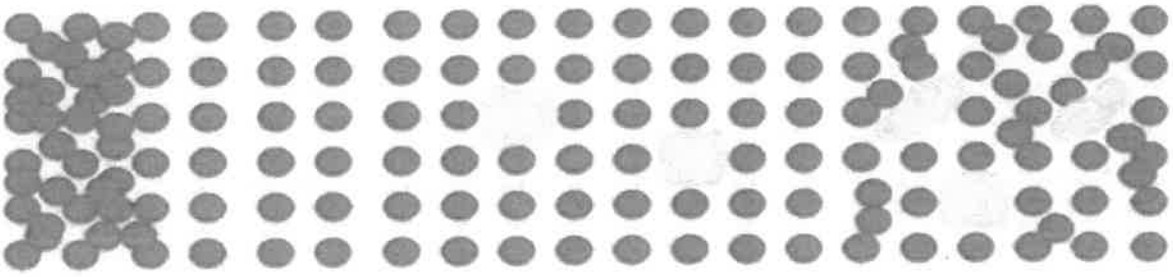
This forest fronts Season Road in a high traffic area. It is 100 ft. west of our Pine Plantation of 20 acres. During the 1990's, we removed dumping debris that had accumulated over decades of trespassing. We want to restore it's natural beauty. The soils here are Mahoning and Ellsworth B-slope silt loams (MgB, E1B)....good for the red maple plus upland oaks, hickory, tulip, and the beech; not for black walnut.

Current forest type and current age

Forest Type	Age
Red maple	50 yrs.
Ash	

Bird's-eye view of current stand condition (check one)

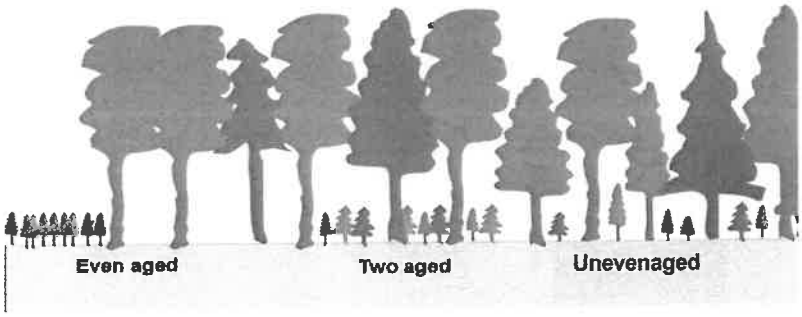
☑ **Wild stand** ☐ **Evenly spaced** ☐ **Evenly spaced with openings** ☐ **Variable density spaced with openings**



Current spacing (in feet) Large (>9"DBH) 15 (ft) Pole (5-8"DBH) 15 (ft) Seedling (<5"DBH) 15 (ft)

Size and shape of openings 15ft. by 15 ft.

Current structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Stand # Seven Desired Future Stand

Condition **Desired forest type and expected longevity**

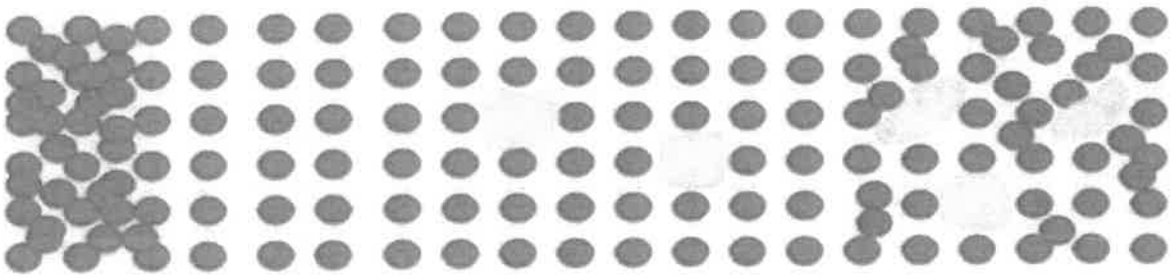
Forest Type	Age
Red maple	all

Desired species to naturally regenerate Red maple

Desired species to plant not required

Bird's-eye view of current stand condition (check one)

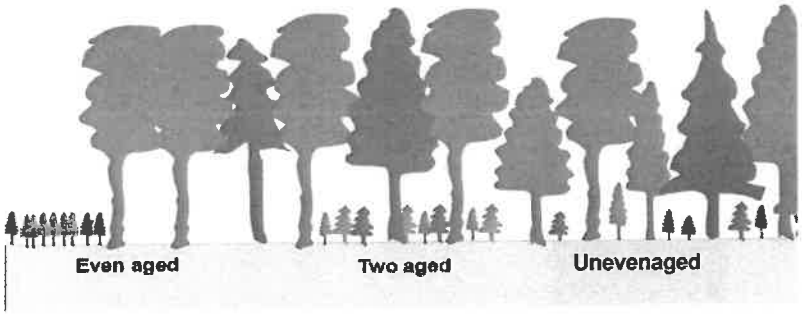
☑ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☐ Variable density spaced with openings



Current spacing (in feet) Large (>9"DBH) 15 (ft) Pole (5-8"DBH) 15 (ft) Seedling (<5"DBH) 15 (ft)

Size and shape of openings 15ft. by 15 ft.

Current structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Stand #Seven Desired Future Stand

Condition Desired forest type and expected longevity

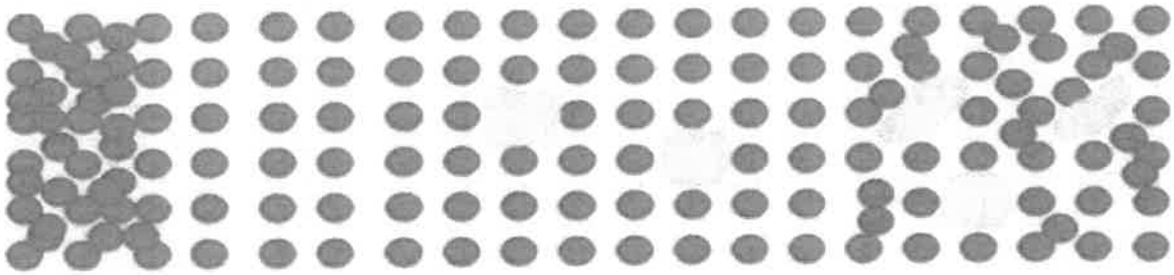
Forest Type	Age
Red maple	all

Desired species to naturally regenerate Red maple

Desired species to plant not required

Bird's-eye view of desired future stand condition (check one)

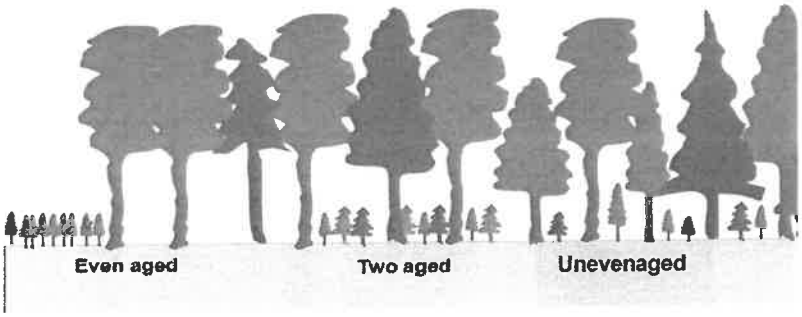
☐ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☑ Variable density spaced with openings



Desired spacing (in feet) Large (>9"DBH) 25 (ft) Pole (5-8"DBH) 25 (ft) Seedling (<5"DBH) 10 (ft)

Size and shape of openings 25 ft. by 25 ft.

Desired structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Other Desired Stand Descriptions:

Stand # Seven Forest Management Activities

If a subset of the stand is being treated, the general area can either be described or identify the impacted areas on your map

Forest Health Management Activities

Continue crop tree release thinning. Continue weed control at the frontage along Seasons Road. Finish the Timber Stand Improvement of grape vine control.

Harvesting

None at this time.

Slash management

Post harvest activities

Permits

Best Management Practices

Monitoring

Each day, inspect for litter and dumping.

Add more pages as needed for each additional stand of trees.

Stand Level Information

For each stand, write what your management objectives are and a brief description of the stand and its current and desired future conditions as well as the management activities. Further detailed inventory/plot data can be included if desired.

Stand Objectives

Stand# Eight **Acres** 17.21

Objectives:

THE LAKES FOREST AT SEASONS ROAD This stand has two small lakes that are part of the Mudbrook Watershed - this water flows east toward Hudson's water well fields. Our main goal here is to protect the water. Many letters have been mailed asking for help to stop the dumping that occurs at this water way.
For decades, adjacent property owners have dumped into these waters.

Stand # Eight Current Conditions

General description

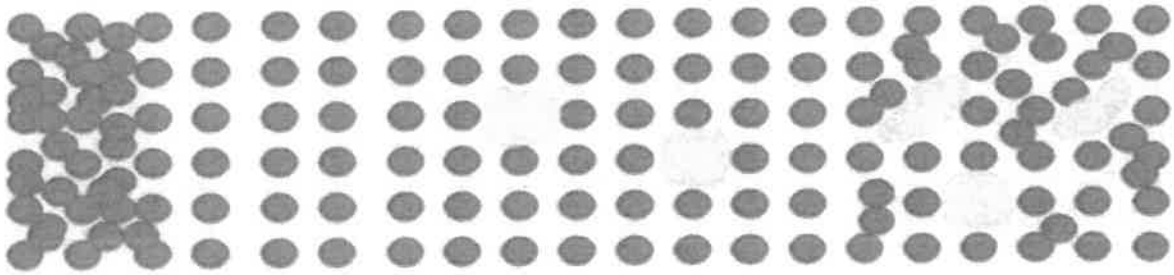
On Rt. 8 in Hudson, tens of thousands of motorists drive by this stand each day. There are many adjacent property owners and it seems that each one would fill their wetland area unless they are told not to.
The soil types that are found at the Pine Plantation and the Highpoint Farm are here as well, as this stand is part of the same forest. A few new soil types are present as well; in the drainages there is a nearly level, poorly drained Canadice silty clay loam. In the north part of the stand, there is a bit of moderately well drained Bogart- Haskins silt loam, 2 to 6 percent slopes (BhB), a bit of well drained Chili loam (CnB), and a bit of Chili gravelly loam (CoC2).
We have spent much time controlling the multi rose flora.

Current forest type and current age

Forest Type	Age
Upland hardwoods	all

Bird's-eye view of current stand condition (check one)

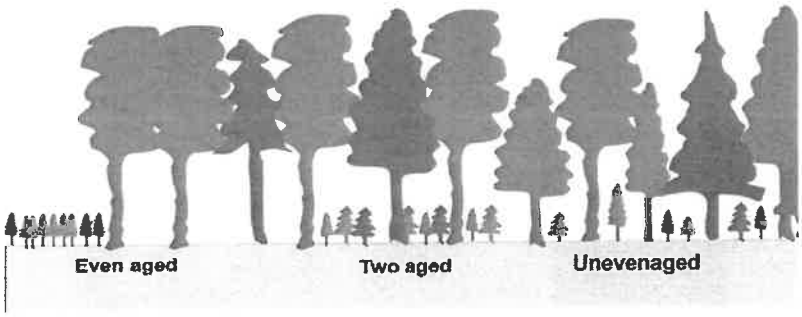
☑ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☐ Variable density spaced with openings



Current spacing (in feet) Large (>9"DBH) 25 (ft) Pole (5-8"DBH) 25 (ft) Seedling (<5"DBH) 15 (ft)

Size and shape of openings none

Current structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

Stand # Eight Desired Future Stand

Condition Desired forest type and expected longevity

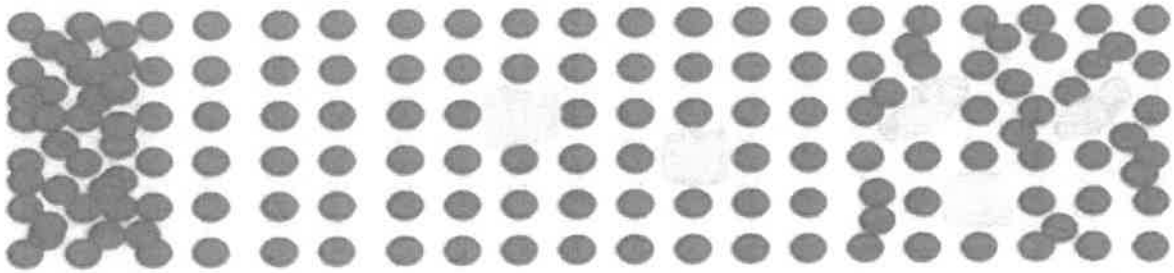
Forest Type	Age
same	all

Desired species to naturally regenerate upland hardwoods

Desired species to plant not required

Bird's-eye view of desired future stand condition (check one)

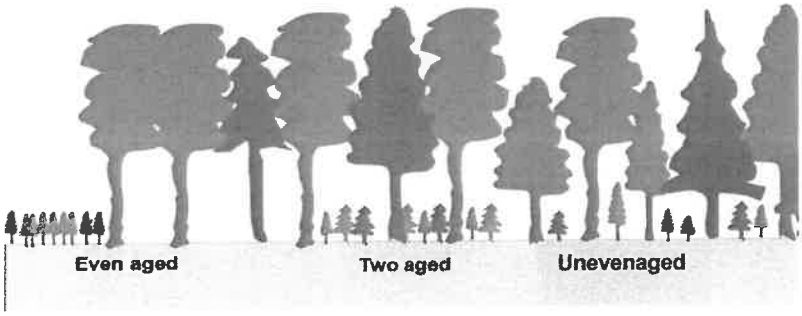
☐ Wild stand ☐ Evenly spaced ☐ Evenly spaced with openings ☑ Variable density spaced with openings



Desired spacing (in feet) Large (>9"DBH) 25 (ft) Pole (5-8"DBH) 25 (ft) Seedling (<5"DBH) 15 (ft)

Size and shape of openings same

Desired structure:



☐ One canopy layer ☐ Two canopy layer ☑ Multi-layer/Unevenaged

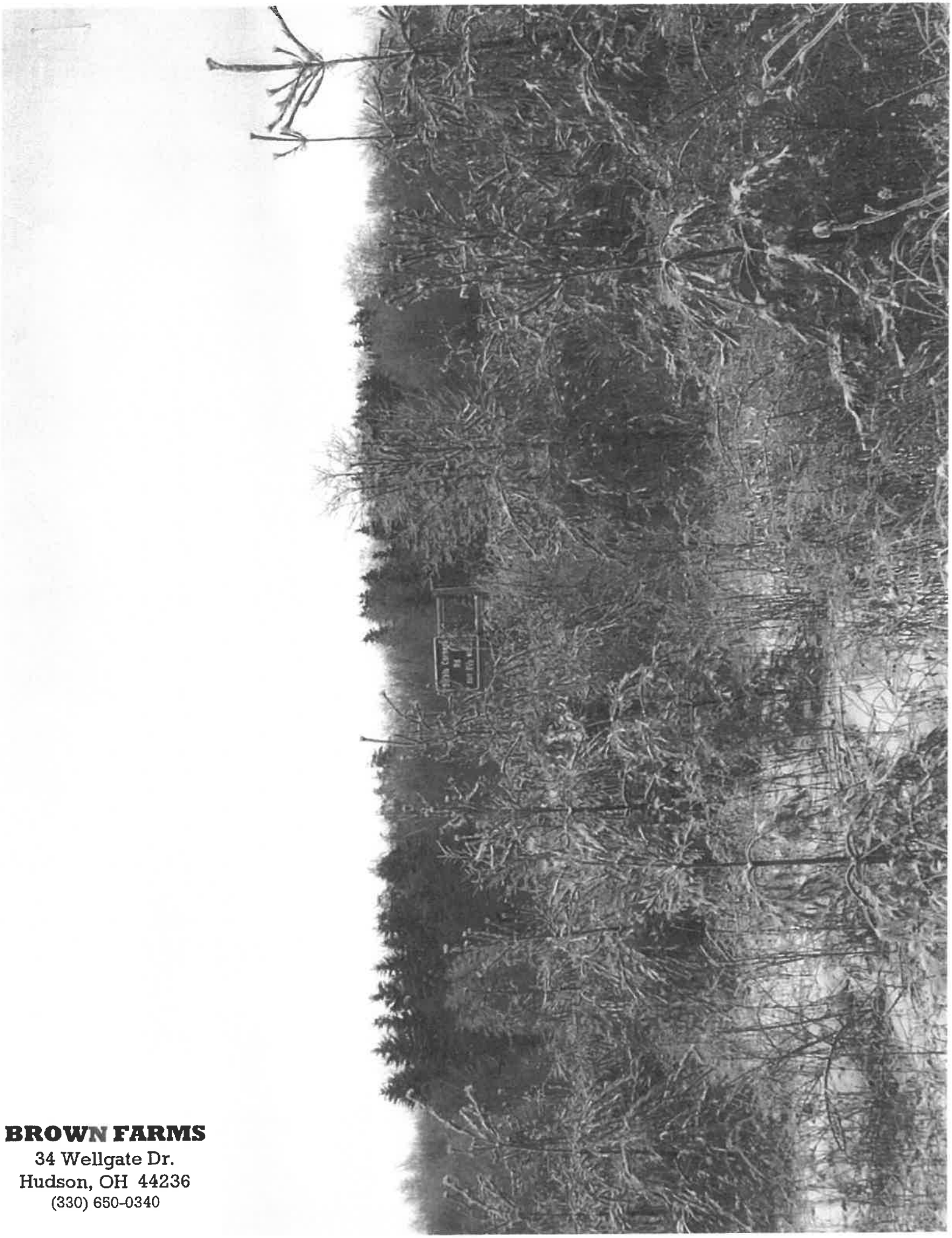
Other Desired Stand Descriptions:

Stand # Eight Forest Management Activities

If a subset of the stand is being treated, the general area can either be described or identify the impacted areas on your map

Forest Health Management Activities

Each day, walk the stand and look for signs of dumping. Inspect the water features for clarity. Maintain the TREE FARM signs that we post along Rt. 8. The signs are prone to wind damage and must be tended. Although we have removed all the vines, look for restarts.



BROWN FARMS
34 Wellgate Dr.
Hudson, OH 44236
(330) 650-0340

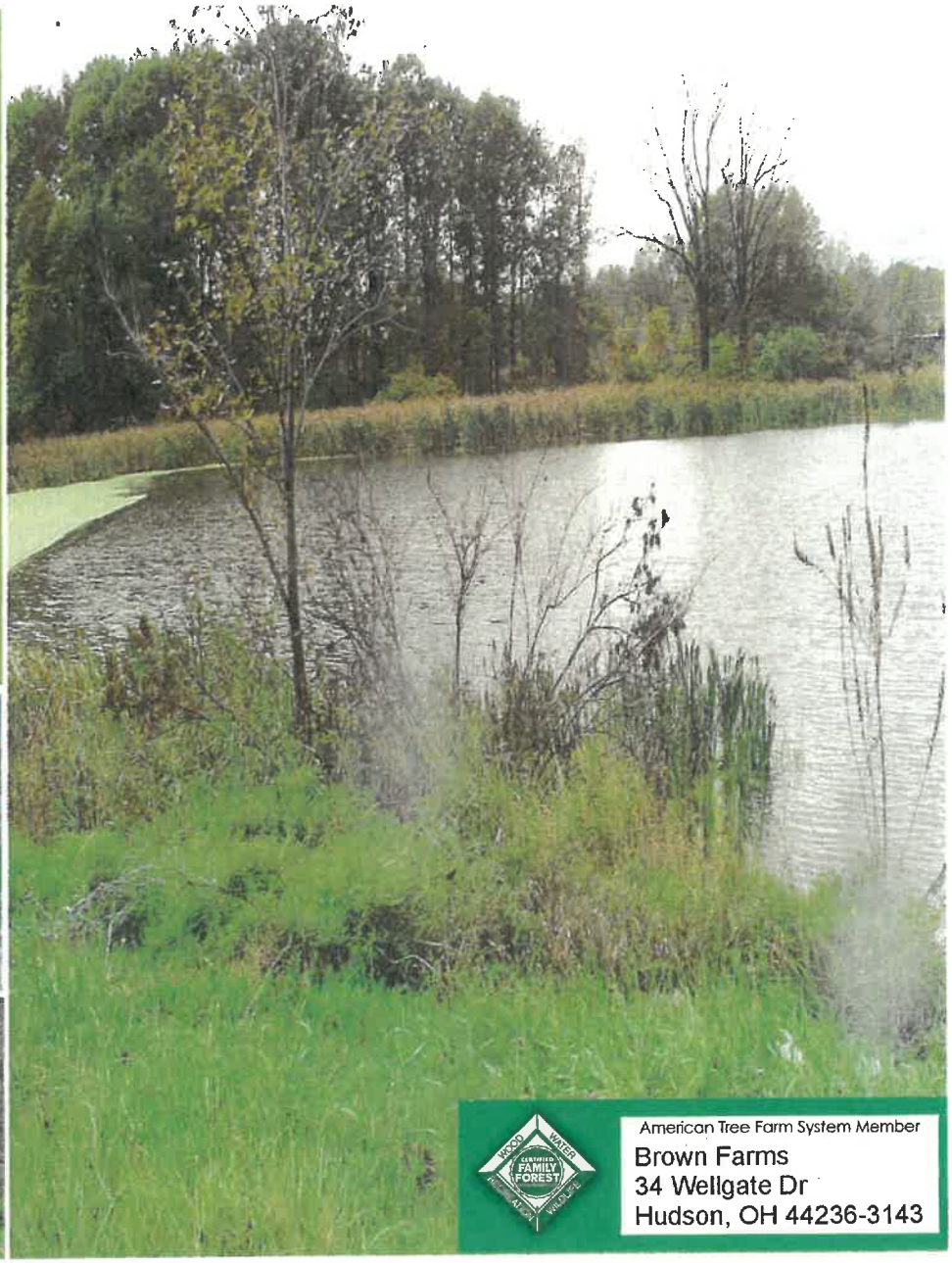
ARCADIS
Infrastructure, environment, facilities

Imagine the result

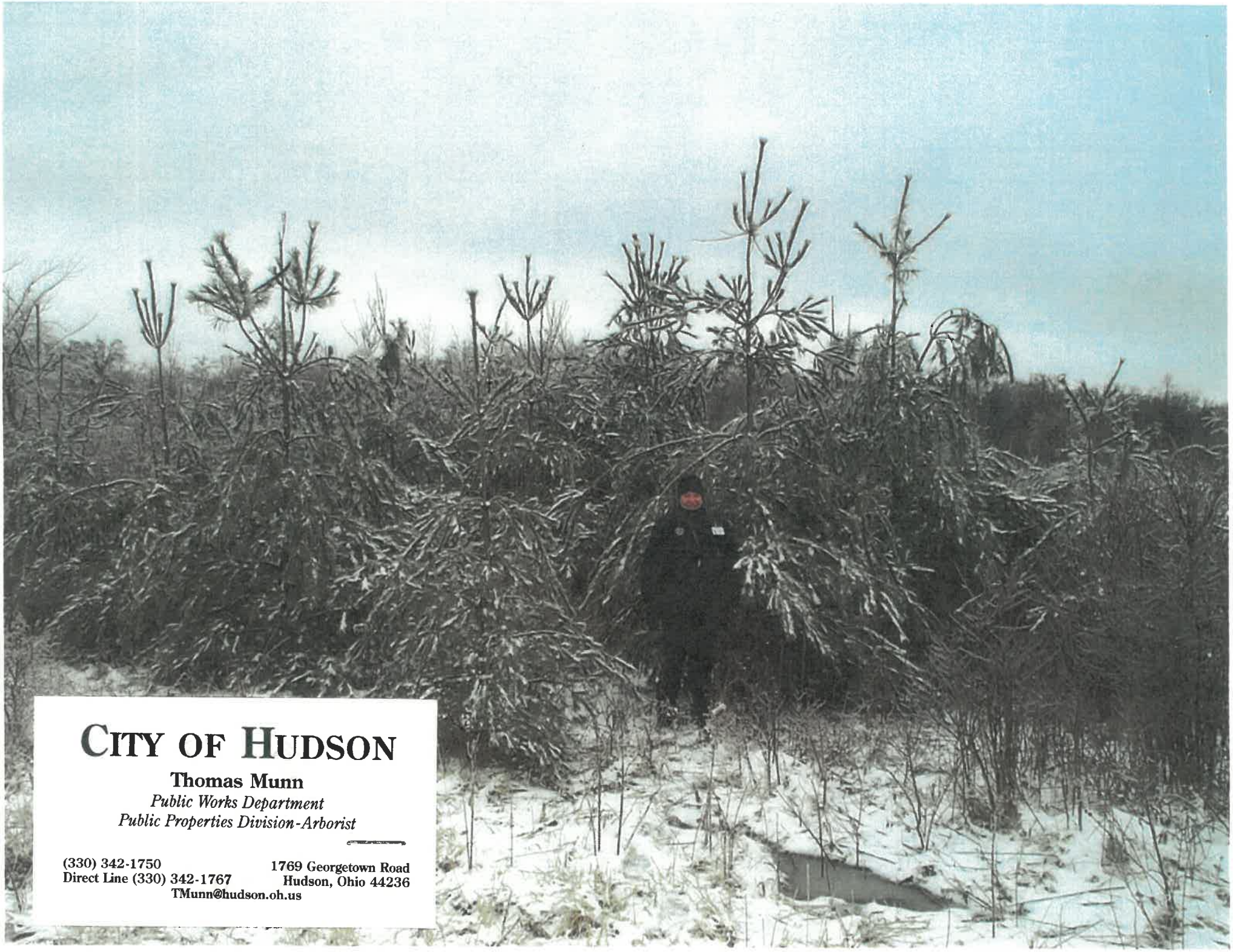
Hudson, Ohio

Mud Brook Watershed Study

July 2006



American Tree Farm System Member
Brown Farms
34 Wellgate Dr
Hudson, OH 44236-3143



CITY OF HUDSON

Thomas Munn

Public Works Department

Public Properties Division-Arborist

(330) 342-1750
Direct Line (330) 342-1767
TMunn@hudson.oh.us

1769 Georgetown Road
Hudson, Ohio 44236