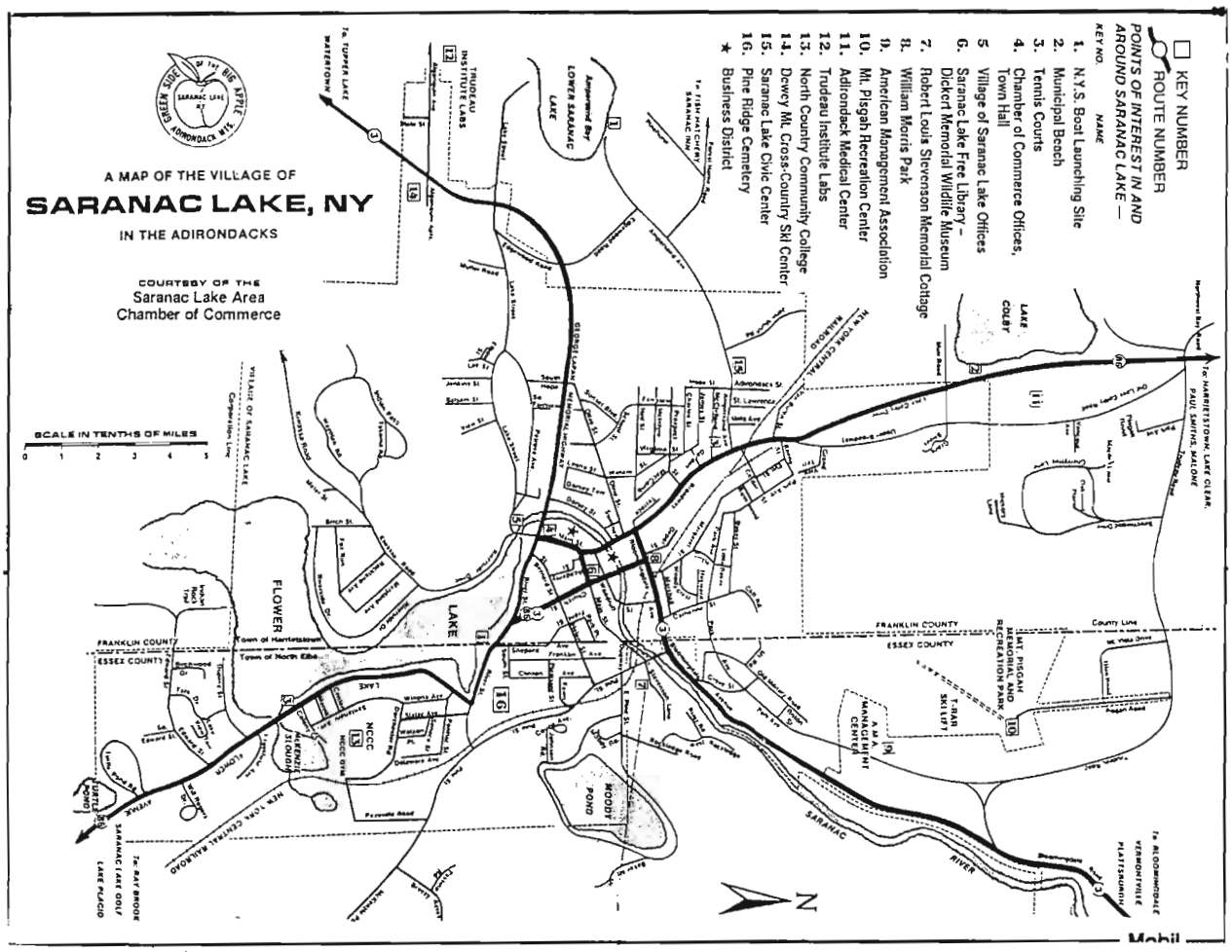
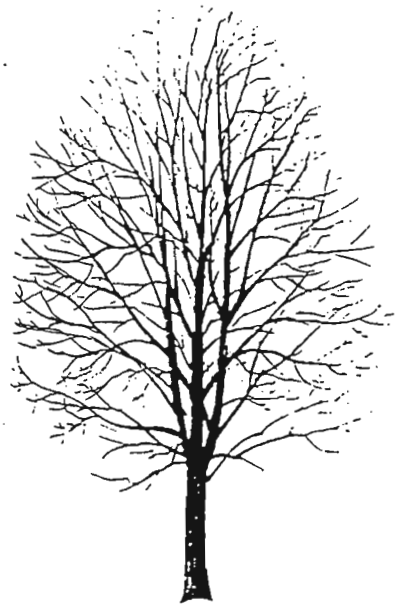
URBAN FOREST MANAGEMENT PLAN

For the VILLAGE OF SARANAC LAKE, NY





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August, 1999

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INTRODUCTION

This Urban Forest Management Plan for the Village of Saranac Lake was prompted by the severe ice storm of January, 1998. In order to assist communities impacted by the storm (and to prevent similar devastation in the future) the U.S. Forest Service made available funds for the assessment and planning of urban and community forest/ green spaces. The Villagae of Saranac Lake was eligible for an initial allocation of $11, 022. The money was to be awarded in an 80:20 matching grant format in which the Village provides $20 for every $80 provided by the grant. Funds not used for planning and assessment could be used for implementation of work activities as outlined in the management plan. The management plan is subject to approval by the New York State DEC as well as the Northeast Center for Urban & Community Forestry. Documents pertaining to this Grant including the Grant Application and a description of the desired management plan are found in Appendix E.

Although the trees in the Village of Saranac Lake were not severely impacted by the 1998 storm, a management plan including pro-active, preventative measures will help reduce damage from future storms. In addition, the urban forest of the Village of Saranac Lake represents an economic, environmental, and aesthetic asset to the community.

This management plan will help identify and prioritize maintenance needs of the trees that fall under the care of the Village. Improved tree heath and survival will result in long-term benefits and reduce public liability by reducing hazardous conditions. The growing concern over public trees as potential liabilities is reviewed by Andrew Brick of the NYCOM Counsel. This article is provided in Appendix F. Richard Meyer of the Law Office Brooks & Meyer has reviewed the Village's legal rights and obligations regarding trees located within or near Village streets and sidewalks. His letter to the Office of Community Development is also provided in Appendix F.

There are very few existing tree maintenance or protection ordinances/codes for the Village. A copy of existing Village codes pertaining to trees is also provided in Appendix F

DESCRIPTION OF THE SARANAC LAKE URBAN FOREST

An "urban forest" consists of all trees in and around human settlements. It is the sum of street trees, park trees, commercial and residential trees. It also includes trees in transportation and utility corridors. Therefore, the urban forest is a mix of both public and privately owned trees. The trees that comprise the urban forest may be intentionally planted or they may naturally occurring trees.

The Village of Saranac Lake is typical of small, rural towns where a great percentage of the urban forest consists of trees that were here before development or that seeded in naturally. In the public domain, only the downtown area, parks, and more developed residential streets have intentionally planted trees.

Many larger cities are striving to attain a greater % of greenspace relative to the urban landscape. Most large cities have less than 50% crown cover. Saranac Lake is fortunate that an estimated 75% or more of the land within the Village limits has tree canopy coverage. This coverage is apparent in the infrared aerial photo provided in Appendix D.

-Saranac Lake Street Trees:

There are 23.25 miles of roads in the Village of Saranac Lake. A complete tree inventory was conducted in the summer of 1999. The inventory revealed an estimated total of 287 trees growing within the Village public right-of-way. Although this number may seem small relative to the number of road miles, it is not an indication of poorly stocked streets. Many of the residential streets have a narrow right-of-way (typically 5 ft. from the edge of the road). Although trees may not be growing within this right-of-way strip, there are usually numerous trees growing nearby on private residential property. Very few of the streets in Saranac Lake have designated "planting strips" that exist between curbs and sidewalks such as found in more intensely developed cities.

The inventory did not include State maintained roads that pass through the Village although it was observed that few if any trees exist within the State right-of-way along these roads. The State maintained roads are Rt. 86 and Rt. 3.

Overall, the street trees found within the public right-of-way are mostly large, mature trees that are native to the region. Except for the downtown streets of Main and Broadway, there are virtually no new trees planted within the right-of-way. However, 49 potential planting spaces were identified during the inventory. Future planting at some of these locations could help ensure a more mixed age urban forest within the public domain. Detailed information concerning the findings of the inventory will be provided later in this report along with recommendations.

-Saranac Lake Parks

There were 10 public green spaces identified during the 1999 inventory. These parks contained an estimated 304 trees. Trees found in these green spaces fall under the care of the Village. The Village owned and maintained parks in Saranac Lake have a mix of native and non-native tree species. In general, there is also good age and size distribution. The 1999 inventory included these parks and detailed information and recommendations will be provided in that section of this report.

There are 7 other parks within the Village limits that are owned and maintained by the Village Improvement Society. Trees found within these parks fall under the responsibility and care of this organization. A list of these parks is provided below.

· VIS OWNED PARKS ·

- Beaver Park - Anne Tubby, Chairman
  Named for a bank beaver which makes its home here. Beaver Park is on the Saranac River at the corner of LaPan Highway and Dorsey Street. A popular fishing and picnic site, the scenic hilltop has a park bench and fragrant row of roses. Major relandscaping was recently completed.

- Denny Park - DiAne De Lair, Chairman
  This two acre park bordering the River at the corner of Bloomingdale Avenue and Pine Street presents a pleasant entrance to the eastern edge of the Village. Denny Park offers benches, extensive lawns and a variety of trees including some just added in the Spring of 1995.

- Dorsey Park - Eleanor Munn, Chairman
  On the Saranac River beside the Dorsey Street Bridge to the Municipal Parking Lot, this charming little park, sheltered by shade trees and a cedar hedge, offers a secluded spot for rest and contemplation.

- Other Side of the Tracks Herb Garden - Janet Decker, Chairman
  This special garden boasts 38 varieties of aromatic herbs with identification plates. A bench and memorial plantings increase the pleasure of lingering on the other side of the tracks from Triangle Park.

- Sunset Park (Adirondack Arboretum) - Jan Kubli, Chairman
  This natural park, bounded by Olive and School Streets and Sunset Avenue, is a certified Urban Wildlife Sanctuary. A walk along the meandering paths will afford the visitor to this arboretum an opportunity to see over 35 varieties of Adirondack trees and diverse wildlife.

- Triangle Park and Riverbank - Roberta Agnew and Gloria Drucker, Chairmen
  The yearly addition of perennials and bulbs by VIS volunteers has enriched this lush park with its scenic views and nostalgic Adirondack Railroad tracks at the intersection of Main and Pine Streets. Across Main Street VIS leaves the steep triangle riverbank in its natural state.

- Vest Pocket Park - Margaret Mostowy and Elinor Zahn, Chairmen
  Beside the Library and across from the Hotel Saranac, VIS' most visible and heavily used park provides a refreshing downtown focus for all ages who visit, rest and relax.

1999 INVENTORY OF PARK AND STREET TREES OF SARANAC LAKE

Purpose:

The purpose of a tree inventory is to identify and assess the publicly owned trees as a first step in preparing a sound management plan. The 1999 inventory included data collection on publicly owned street trees and park trees. In addition, potential planting sites were identified. Included in the inventory is a separate listing of all the hazardous trees identified along the Village streets. This list includes trees in the public right-of-way as well as privately owned trees that may pose a hazard to a transportation corridor.

All of the data was entered onto data sheets and entered into a computer using Quatro Pro 8. The completed data sheets are provided in Appendix A of this report. A copy of the data will be copied onto a disc and provided to the Village of Saranac Lake.

Inventory Procedures:

For all of the data collected in the inventory, a code sheet was prepared with the corresponding codes defined. This code sheet is included in Appendix A. Data was collected individually on each tree using visual inspection. Tree diameters (DBH) were recorded using a biltmore stick.

-Street Tree Data

Information collected for the street trees included the street, address, location, type of site, species, DBH, condition, maintenance needs, presence of overhead wires, and any pertinent comments. Where addresses were not marked, addresses were made up that seemed appropriate for finding the site in the future. Made up addresses are indicated by having an "m" precede the numeric address.

Some streets had extensive sections of undeveloped wood lots bordering the road. In these cases, only the trees in DBH class 4 or greater that were within the estimated right-of-way were included in the inventory data.

It should be noted that at the time of the inventory, accurate right-of-way information was not available for each street in the Village. Although right-of way distances were evident in most cases, there may be some trees included in the inventory that are actually on private property. There may be some trees within the public right-of-way that were not included for the same reason. Before removing or pruning any tree, definite ownership should be ascertained.

-Hazard Tree Data

Any tree on public or private property that appeared to pose a potential hazard to a structure or person on public property was recorded separately on a Hazard Tree List. Criteria used for assessing hazard trees was percentage of dead wood, evident rot or other visible defects. Due to the scope of this project, more subtle defects that could lead to tree failure were generally not investigated. Decay detection equipment was not employed.

Every tree has the potential to fail. This list is an attempt to identify those trees that seem most likely to fail and which should be addressed first.

-Planting Spaces

Locations for future tree planting were noted throughout the inventory process. Information collected included street (or park) location, site, presence of wires, number of trees possible and recommended size of trees to be planted. Only good sites located on public property were noted. Many other good tree planting sites exist set back beyond the public right-of-way.

Again, clear communication with adjacent property owners should occur before any tree planting operation in order to clarify property ownership and to be sure that the planting is desired by those who will be most affected by the new tree.

-Park Tree Data

Information collected in the park areas included species, DBH, condition, maintenance needs, wires, and pertinent comments. Trees that were included were those growing in the maintained portions of the parks (where mowing is performed). Small, naturalized trees along park borders were not included.

Summary of Inventory Findings and Recommendations:

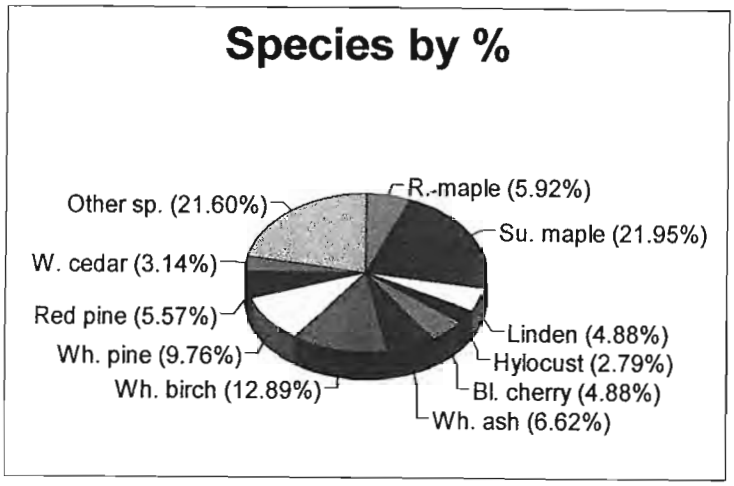
Street Trees:

Completed data sheets for publicly owned street trees are found in Appendix A. There were a total of 287 trees found along the Village streets that appeared to be in the public right-of-way. The following summary is provided:

The most frequently found tree species along Saranac Lake streets is the Sugar Maple (21.9%) followed by White Birch (12.9%) and White Pine (9.8%). A listing of the top 10 species is provided below along with a graph showing the relative % of total trees by species.

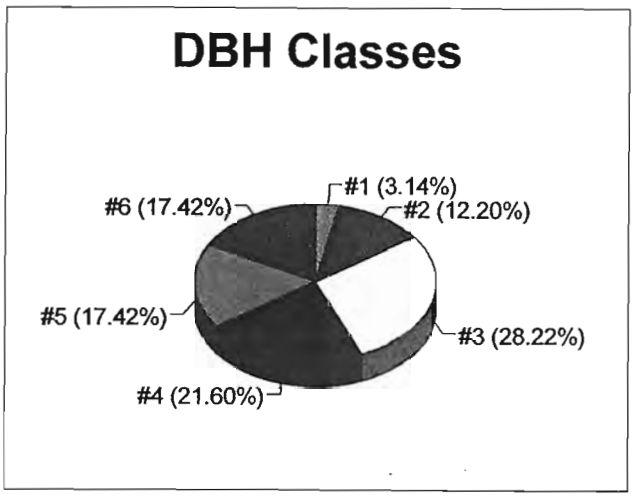
Species Distribution by Number

Species Name	Number of Trees
Sugar Maple	63
White Birch	37
White Pine	28
White Ash	19
Red Maple	17
Red Pine	16
Littleleaf Linden	14
Black Cherry	14
White Cedar	9
Honeylocust	8
All other species	62



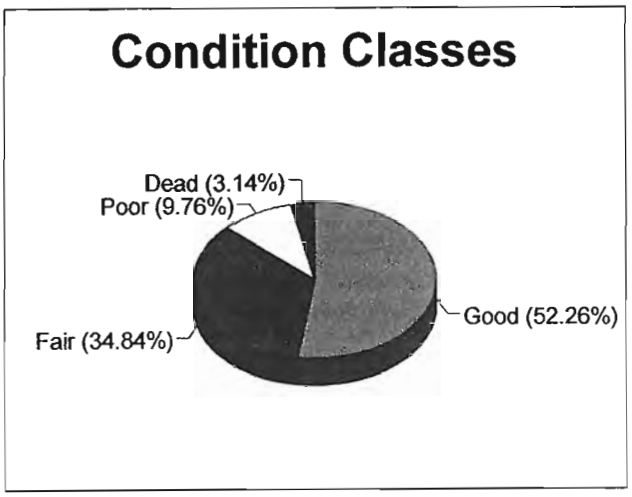
Diameter Classes (DBH)

Class	Number of Trees
1 (<3")	9
2 (4"-6")	35
3 (7"-12")	81
4 (13"-18")	62
5 (19"-24")	50
6 (>25")	50



Condition Classes

Class	Number of Trees
Good	150
Fair	100
Poor	28
Dead	9



Maintenance Classes

Class	Number of Trees	% of Total
1 (No Maintenance Recommended at this time)	124	43.2%
2 (Crown Cleaning Recommended)	87	30.3%
3 (Crown Raising Recommended)	16	5.6%
4 (Crown Thinning Recommended)	9	3.1%
5 (Crown Reduction Recommended)	0	0%
6 (Hazard Reduction Pruning is Recommended)	15	5.2%
7 (Cable or Rod Bracing is Recommended)	19	6.6%
8 (Removal of Tree is Recommended)	27	9.4%

*Note: The total number of trees for this category exceeds the total of 287 inventoried trees because more than one maintenance practice is recommended for some trees.

A printout of all Tree Removals and trees requiring Hazard Reduction Pruning is provided in Appendix B.

Overhead Wires

Class	Number of Trees	% of Total
1 (No wires within 10' of crown)	213	74.2%
2 (Wires exist within 10' of crown)	20	7.0%
3 (Wires pass through the crown)	54	18.8%

A printout of all trees that have wires passing through the crown is provided in Appendix B.

Discussion of Inventory Findings and Recommendations:

-Street Trees Inventory

The 1999 inventory revealed that the Saranac Lake street tree population consists mainly of large, native tree species. Nearly 35% of the trees were greater than 19" in diameter. There were very few young, recently planted trees. The majority of young trees were found in the downtown area (Main and Broadway). These trees have very restricted root zones and are subjected to other stresses as well as vandalism. The plastic tree grates are being broken up and will need to be removed in the near future.

Overall, the majority of the trees were in good condition. There were 37 trees (12.9%) that were either in poor condition or dead. Nearly 44% of the trees required no maintenance at the time of the completed inventory. Close to 30% would benefit from a general crown cleaning to remove small dead wood, stubs and rubbing branches. Nineteen trees need cables installed to support weak crotches. Fifteen trees should be pruned in the near future to remove potentially hazardous limbs. Twenty-seven trees were found to be dead or poorly located and removal was recommended. Printouts of all trees needing hazard pruning or removal are provided in Appendix B along with trees for which cabling is recommended.

Fifty-four trees were found to be growing into existing power lines. These trees should also be on a priority list for the Niagara Mohawk Utility pruning schedule. A printout of these trees is provided in Appendix B.

Recommendations:

> The priority concerns based on the street tree data is the hazard reduction pruning of 15 trees and the removal of 27 other trees (due to poor condition or poor location). These tree locations and pertinent data are provided in Appendix B.

> The next priority would be the installation of support cables in the 19 trees found with weak crotches. A printout of these tree locations is also provided in Appendix B.

> The third priority would be the care of the downtown trees that are installed in the sidewalk tree pits. These trees should receive annual fine pruning and should receive root zone irrigation on an annual basis. The plastic tree grates should be removed and replaced with paver stones.

> The fourth priority would be to consider a planting program that would help to ensure a more age-balanced urban forest. Proper tree selection would also ensure less maintenance problems in the future. More information on a tree planting program will be provided in the next section.

-Planting Spaces Inventory

The completed data sheets for planting spaces is provided in total Appendix A. A total of 49 potential planting spaces were identified that appeared to be within the Village right-of-way. This small total is due to the fairly narrow public right-of-way along residential streets. In addition, an attempt was made to select sites with no overhead wire conflicts.

The 13 spaces located on Winona provide limited root zone space due to a narrow 3' wide planting strip between the edge of the road and the sidewalk. Special selection of small-growing trees would be essential for these sites. Species selection at the other sites would also be important. Information pertaining to tree selection and planting guidelines is provided in Appendix C.

Many more available planting spaces exist along Village roads but these are on private property. There is the possibility of having the Village purchase trees to be planted along Village streets on private property. This type of program has been implemented in other towns including Potsdam. The advantages are that the trees get placed where root growth is least impeded, the trees are further from overhead wires, and further from salt runoff and plowing. Another great advantage to supporting tree planting on private property is that maintenance and liability issues are also transferred to the private property owner. See Appendix C for information about Community Tree Planting Programs.

More planting sites exist in Village parks/greenspaces. Riverside Park and the greenspace by the public tennis courts are good sites for more tree planting.

Discussion and Recommendations for Tree Planting:

There are relatively few quality tree planting spaces within the Village right-of-way along Village streets. However, many quality sites exist along streets on private property. I recommend that the Village set up a cooperative planting program for interested homeowners in addition to seeking funds to assist in planting trees in the available sites in the public right-of-way.

Species selection for street tree planting is important. The trend is to utilize low-growing compact trees that can tolerate urban stresses. A recommended listing is provided in Appendix C.

-Hazard Trees Inventory

The completed data sheets for the hazard tree inventory are provided in Appendix A.
The hazard tree data included any obvious tree on public or private property that could pose a hazard to people or vehicles along the adjacent roads.

There were 39 hazard trees recorded. Of these, 34 were recommended for removal. (The others should be pruned to reduce the hazard and/or monitored). Fourteen of the 39 trees are either growing into or within 10' of power lines.

Discussion of Findings and Recommendations pertaining to Hazard Trees:

Addressing the potential hazard trees should be at the top of the priority list. Because of potential liability concerns, all of these trees should be attended to regardless of ownership. The Village should determine whether removal of potentially hazardous trees located on private property will be entirely at the Village's expense or whether a cost-share incentive could be offered to private property owners who have hazard trees on their property. The power utility, Niagara Mohawk, has also indicated interest in such cost-sharing where trees slated for removal also endanger existing power lines.

-Park Tree Inventory Findings and Recommendations

Completed tree data sheets for the Village parks are provided in Appendix A.
The following are summaries of the data and recommendations for maintenance.

Riverside Park - Boat Launch Site:

There are 87 trees in the landscaped portion of the park on either side of the boat launch site. Sugar maples and green ash are the most common species in this park. There are 35 sugar maples and 29 green ash trees. These trees are primarily in DBH classes 2 and 3. Some of these trees appear stressed (decline and dead wood). This is particularly true of some of the sugar maples.

Riverside Park should be a priority area for Village tree care efforts. To maintain and improve health, I recommend root irrigation with a low nitrogen, slow-release fertilizer once every 2 years applied in the spring. The main purpose of such efforts would be to reduce compaction and provide necessary nutrients for these focal trees. The larger trees in the park should be monitored yearly for potential hazards. There is one tree (red pine) recommended for removal.

Riverside Park - Band Shell Site:

There are 26 trees in this section of Riverside Park. Overall, the condition of the trees is good. There is one white pine with a dying top that should be monitored. This park receives much use and should be a priority area for tree care practices.

The 6 young trees should be pruned for training purposes and receive a 2" layer of quality bark mulch over their root system up to 3 ft. out from the tree trunks. The larger trees in this park should be monitored yearly for potential hazards.

Berkely Green:

There are 13 trees in this park consisting of 6 crabapples, 6 white cedars and 1 linden. All trees are in DBH classes 1 or 2. This is another high-use park that should receive priority attention.

The larger crabapples should have their lower branches raised. The linden needs to be thinned.

William Morris Park:

This is another high-use park that should be a priority area for tree care. There are 23 trees in the landscaped portion of this park. There are also approximately 40 white cedar trees with avg. DBH of 10" found along the park's inside border.

Pruning needs are minimal at this time. However, a large sugar maple has a noticeable V-crotch and should have a cable installed. This tree is located near the building along Depot Street.

Union Depot:

There are 13 recently planted trees on either side of the Union Depot. These consist of 6 Honeylocust and 7 Littleleaf lindens. These trees should be watered during dry periods of summer months until fully established. Mulch should be maintained over their root systems until they reach 4" in trunk diameter.

River Walk Park (Esplanade area)

There are 47 trees in this inventoried portion of the River Walk esplanade. This area consists of a mix of large, native trees growing along the river and recently planted trees and shrubs along the paver walkway.

There are 3 trees recommended for removal and 4 trees that should have cables installed to support weak crotches (see inventory data sheet). Mulch should be maintained on newly installed trees and water should be applied during summer dry periods.

Hydro Point Park:

There are 7 trees associated with the Hydro Building and Park.
The two lindens would greatly benefit by having sod removed and quality mulch applied over root systems up to 3 ft. out from the trunks.

Ice Cream Stand Park on Lake Flower Ave.:

There are 13 trees in the maintained area of this roadside green space. Most of the trees are large, native evergreens in DBH classes 4 and 5. These mature trees could use some crown cleaning and should be monitored annually for potential hazards.

Tennis Court Park:

There are 15 trees in the maintained portion of this park along with approximately 25 white cedars that comprise a tall hedge along the tennis court fence. There are several large American elms in good heath that are worth noting.

There are 2 trees that should be removed and one large elm that should have a cable installed. See the inventory data sheet for species and size information. There is room to plant several small ornamental trees (such as crabapples).

Lake Colby Beach:

There are 20 trees in the maintained portion of Lake Colby Beach. These consist mostly of white birch, red maple and green ash. The trees are in fair to good health but would benefit by having a 2" layer of bark mulch spread over their root systems after removing the sod out to 3 ft. from their trunks. This would also improve the aesthetics of this park area.

Summary of Park Maintenance Concerns:

The parks are generally high-use areas so liability concerns should direct efforts to maintain the park trees in a healthy, safe condition. Several of these parks require tree removal efforts and/or installation of support cables in some trees to reinforce weak trunk crotches. All of the parks should be monitored annually for potential hazards.

These parks are also focal points for community activities which calls for prioritized tree care efforts for the sake of aesthetic enhancement. Root zone irrigation is recommended where soil compaction is common and the application of quality bark mulch over root zones is also recommended for younger trees. More concerted pruning efforts are required for the park trees to keep them looking good and to eliminate potential hazards.

MANAGEMENT GOALS & PROPOSED MAINTENANCE ACTIONS

Management Goals:

1. Maintain a safe and healthy street tree and park tree population.

2. Focus tree care efforts on downtown street trees (on Main and Broadway) and the major Village parks (Riverside Park, Berkeley Green, and William Morris Park).

3. Improve the age class distribution of trees along Village streets.

4. Improve tree species diversity along streets and in parks

5. Involve Community members to play a role in tree care and tree planting efforts.

6. Develop up-to-date ordinances to protect public trees.

Short-Term Tree Maintenance Action Items:

I. Remove hazard trees and other trees recommended for removal on public street right-of ways and in Village parks.

2. Investigate ways to assist private homeowners in removal of hazard trees on private property that border public streets.

3. Perform hazard reduction type pruning on inventoried trees identified as needing such care.

4. Install support cables on trees needing such treatment located in the public right-of-way or located in Village parks.

5. Root zone irrigate/fertilize the downtown trees growing in sidewalk planting pits.

6. Address the need for root zone protection for downtown trees by installing new grates or paver stones to reduce soil compaction.

7. Root zone irrigate/fertilize the young trees every 2 years that are located in the Village parks.

8. Remove sod and mulch under young trees in Riverside Park (by Band Shell) and Lake Colby Beach site.

9. Plant new trees in identified locations within the public right-of-way along streets and where noted in Village parks.

Long-Term Tree Maintenance Action Items:

1. Provide routine inspections of street and park trees for hazardous conditions. Annual inspection of park trees and downtown trees. Inspection of street trees at least every other year.

2. Develop a tree planting program that would allow planting of trees on private property using grant money and/or tax dollars.

3. Develop a comprehensive set of specifications for contracted services pertaining to tree care.

4. Re-establish a Community Tree Board to provide guidance and recommendations to the Village for care of the Community forest.

5. Develop a pertinent, effective street tree ordinance for the Village of Saranac Lake.

RESOURCES FOR MAINTAINING THE VILLAGE TREES

Current Village Resources:

According to Robert Martin of the Saranac Lake Public Works Department, there is $1,000 in the annual budget for tree care related activities. The Village owns 1 brush chipper and several chainsaws. The Village does not, however, own a chip truck or aerial lift.

The Phase I grant allocation is for $11,022. The inventory and management plan will cost approximately $500. The remainder of the Phase I money can be made available for tree care maintenance activities as outlined in this plan. More grant money can be obtained to implement the management plan but this money must be applied for in a separate grant proposal.

Community Resources:

Paul Smith's College has an Urban Forestry Program. Students in the program have provided tree care services for Village trees in the past. This program can be looked to for assistance in achieving some of the maintenance actions outlined in this management plan.

Randall Swanson is the Coordinator of the Paul Smith's Urban Forestry Program. He also has an established tree consulting business. He can be approached concerning further guidance pertaining to this management plan and future tree maintenance issues.

Commercial Tree Care Services:

There are several tree care companies in the Tri-Lakes area capable of performing the maintenance tasks outlined in this management plan. It is important that the job specifications are thorough and clear for any work that is put out for bids. Any company working on Village trees should be fully insured and having a certified arborist on their staff is recommended.

Books of Value Pertaining to Tree Care:

Urban Forestry by Robert Miller
Prentice Hall ISBN: 0-13-458522-4

Trees for Urban and Suburban Landscapes by Edward Gilman
Delmar Publishers ISBN: 0-8273-7053-9

Urban Trees: Site Assessment, Selection for Stress Tolerance, Planting
Published by Urban Horticulture Institute, Cornell University
(607) 255-4586

UTILITY OPERATIONS IN THE VILLAGE OF SARANAC LAKE

Niagara Mohawk is the utility company responsible for the power lines distributing power into and through Saranac Lake. According to Ken Finch (Director of System Forestry), the trees are on a 6 year trim cycle to keep them out of the lines. The Village trees were last trimmed for this purpose in 1996.

Mr. Finch indicated that Niagara Mohawk would be willing to participate in a cost-share program involving the removal of hazard trees that may be endangering power lines. Where trees are removed, he is in favor of replanting with low-growing, compact trees that would not conflict with the lines.

Niagara Mohawk is also offering to assist in replanting efforts in the aftermath of the ice storm. Their "10,000 Trees Program" entails a contribution of $30 per tree for new tree purchases made by the Village that will be planted in the public right-of-way.

APPENDIX C

-Tree Selection and Planting Guidelines

-Recommended Street Trees for the Village of Saranac Lake

- Community Tree Selection Guidelines

- Setback Planting Information

-Planting Techniques Outline

APPENDIX C

Tree Selection and Planting Guidelines

Tree selection is critical in order to meet the needs of a site, ensure tree survival, and to reduce future maintenance concerns. Information is included in this appendix on Community Tree Selection and the value of Setback Tree Planting.

The Urban Horticulture Institute at Cornell University has prepared an excellent guide and selection manual for street tree selection. Some of the species listed, however, are not hardy to this climate range.

Tree species selection for Saranac Lake should draw from the included Recommended List. Small trees should be selected where power lines are nearby or overhead. Small trees should also be selected where available canopy space and root zone space is limited.

Recommended trees for downtown tree pit locations

The small (4' by 4') openings in the walkway on Main and Broadway provide an opportunity to plant small ornamental trees to enhance the aesthetics of the downtown area. These sites, however, are stressful so species selection and post-planting care are important for long-term survival.

The following trees would be good choices to plant in the pits as trees need to be replaced. It is important to pay attention to the recommended cultivars where listed because there can be great variation within a species and only certain cultivars may be suitable in some cases.

Scientific Name	Common Name
Acer ginnala (single stem form)	Amur maple
Acer rubrum Preferred cultivars: 'Excelsior' 'Red Rocket'	Red maple
Amelanchier spp. Preferred cultivars: 'Cumulus' 'Autumn Brilliance'	Serviceberry
Carpinus caroliniana Preferred cultivar: 'Palisade'	American Hornbeam
Ostrya virginiana (single stem form)	Ironwood
Prunus virginiana Preferred cultivar: 'Canada Red'	Chokecherry
Syringa reticulata Preferred cultivars: 'Ivory Silk' 'Summer Snow'	Japanese Tree Lilac

Recommended Street Trees for the Village of Saranac Lake

(Photos and descriptions for most of the listed trees can be found in Trees for Urban and Suburban Landscapes by Gilman)

Small Trees

(30 ft. or less in height)

Scientific Name	Common Name
Acer ginnala	Amur Maple
Acer tataricum	Tatarian Maple
Amelanchier spp. Preferred cultivars: Amelanchier 'Cumulus' Amelanchier ' Autumn Sunset'	Serviceberry
Carpinus caroliniana	American Hornbeam
Crataegus crus-galli inermis	Thornless Cockspur Hawthorn
Crataegus phanopyrum	Washington Hawthorn
Prunus virginiana 'Canada Red'	Canada Red Chokecherry
Sorbus thuringiaca (fastigiata)	Columnar Oakleaf Mtn. Ash
Syringa reticulata Preferred cultivars: Syringa reticulata 'Ivory Silk' Syringa reticulata 'Summer Snow'	Japanese Tree Lilac
Malus spp. Preferred Crabapple Cultivars: Malus 'Adams' Malus 'Adirondack' Malus 'Centurian' Malus 'Indian Summer' Malus ' Liset' Malus ' Prairi-fire' Malus ' Red Jewel' Malus ' Sentinel'	Crabapple

Moderate Size Trees
(30 ft. - 50 ft.)

Scientific Name	Common Name
Ostrya virginiana	Hophornbeam (Ironwood)
Sorbus aucuparia	European Mtn. Ash
Phellodendron amurense	Amur Corktree
Tilia cordata Preferred cultivars: Tilia cordata 'Greenspire' Tilia cordata 'Corinthian' Tilia cordata 'Olympic'	Littleleaf Linden
Gleditsia triacanthos var. inermis Preferred cultivars: 'Shademaster' 'Skyline' 'Halka'	Thornless Honeylocust

Large Trees
(mature to over 50')

Scientific Name	Common Name
Acer saccharum Note: This species should only be used as a setback planting and selected cultivars should be used that can withstand urban stresses.	Sugar Maple
Acer rubrum Preferred cultivars: 'Autumn Flame' 'October Glory' 'Red Sunset'	Red maple
Betula papyrifera	White birch
Celtis occidentalis 'Prairie Pride'	Hackberry
Fraxinus americana	White Ash
Fraxinus pennsylvanica Preferred cultivars 'Summit' 'Patmore'	Green Ash
Quercus rubra	Red Oak
Quercus macrocarpa	Bur Oak
Tilia americana 'Redmond'	Basswood
Ulmus spp. Preferred cultivars 'Cathedral' 'Homestead' 'Pioneer'	Elm Hybrids

Evergreens

*Note: Evergreens have been omitted from the recommended street tree list since they generally do not make good street trees (dense foliage limits visibility). However, the following trees should perform well in Saranac Lake and can be used for setback plantings or as park trees:

Balsam fir, Tamarack, White Spruce, White fir, Blue Spruce, Red Pine, White Pine, Austrian Pine, White Cedar, and Eastern Hemlock

COMMUNITY TREE SELECTION

What is it?

- **Community tree selection means choosing public trees for superior performances under urban conditions AND particular planting sites and purposes.**
- Other reasons for choosing trees--beauty, cost, local availability, tradition, etc--are secondary to these two primary criteria when choosing street trees.

Why does it matter?

- **By choosing trees on the basis of known performance on particular planting sites, planners can create a better urban forest by minimizing forseeable problems.**
- Time-consuming, expensive, and dangerous difficulties routinely arise when species are planted that will not perform well.
- Examples of bad community choices might be:
  - -- a drought intolerant species like *horse chestnut* for a dry site;
  - -- an acid-loving species such as *pin oak* for an alkaline site;
  - -- a weak-branched species such as *Bradford pear* for a site with ice storms;
  - -- a large, rapid-growing species such as *silver maple* for a site beneath wires;
  - -- a species subject to debilitating disease such as *flowering dogwood*;
  - -- planting only a few common species such as *norway maple* and *green ash.*

What are the best trees to choose?

- **No "best trees" can be identified without first knowing the purpose of the planting and the nature of the planting site.**
- The best trees will be those that will satisfy a particular goal (shade, screen, ornament, species diversity, etc.) on a specific site with the fewest long-term problems.
- Some combinations of goal and site will allow only a few optimal tree choices, while others will permit a large number of possibilities.
- Analyzing a planting site (for drainage, pH, etc.) will be the topic of a later factsheet.

How much trouble is it, and what does it cost?

- **Careful tree selection takes more effort in the short run, but in the long run it takes much less effort and costs much less.**
- Once you know what you are looking for, try local sources first. They may not carry the species or cultivar you want, but the consumer pressure is good for them in any case.
- You will probably end up having some of your trees shipped from a non-local source, or picking them up yourself. For availability and quality, order 6 months before you plant.
- A later factsheet will examine specifying and selecting good trees for street use.

Where can I get more information?

- "Recommended Urban Trees" (Nina Bassuk, Cornell University), available from the Community Forestry Education Project at Cornell Cooperative Extension--Monroe County (716-461-1000), along with a list of regional sources and other information.

SETBACK PLANTING

What does that mean?

- **Setback planting refers to the practice of placing street trees behind the sidewalk.**
- Trees purchased with public funds are normally planted on public property, and it often seems at first "wrong" or "impossible" to put them anywhere else.

Why would anyone want to do setback planting?

- **Public trees placed behind the right-of-way on private land remain healthier, live longer, stay safer, and cost less in the long run.**
- There are many reasons why trees behind the sidewalk do better:
  - — *greater rooting volume*: more soil for the roots generally means a healthier tree, because more water and nutrients are available.
  - — *less pruning*: setback trees interfere much less with wires and roads, resulting in less pruning and fewer opportunities for decay.
  - — *lower stress*: trees away from the streets and highways will not be as affected by road salt, root damage, or heat load.
  - — *better early care*: during the critical years after transplanting, trees on private property tend to receive more attention and less abuse.
- What matters most is to convince people that planting public trees on private property behind the sidewalk is in the common interest of the community.

How is such planting possible? Isn't it against the law or something?

- **There is no single way that communities get this done.**
- Some communities use *easements*, treating the tree like a sort of utility pole.
- Other communities fill out a very short *written agreement* with homeowners.
- Still others have *no formal mechanism*, they just do it and nobody complains.
- But in all cases, keep it simple. It takes **communication, education, and negotiation** between homeowners and local officials for setback planting to work.

Who takes care of setback trees?

- **Again, arrangements vary from community to community.**
- Some communities prefer to treat setback trees like all other ROW trees. Public workers maintain them, and the community is liable for any damage that occurs.
- Other communities turn the trees completely over to the homeowner after planting, so that the community has no future responsibility.
- Combinations of these alternatives exist too! Communities need to decide what they need.

Where is setback planting of particular value?

- *Narrow tree lawns* that provide little rooting volume.
- *High salt areas* that stress trees with drought and kill their young tissues.
- *Low overhead wires* that force repeated massive pruning.

Where can I get more information?

Bloniarz, D. V., and H. D. Ryan III. 1993. Designing Alternatives to Avoid Street Tree Conflicts. *Journal of Arboriculture*. 19(3), 152-156. For a copy of this or other publications on aspects of this topic, contact your local DEC office, Cooperative Extension, or call us at the Project, (716) 461-1000, x244.

- **Planting Techniques:**

- No plant pit shall be dug or approved until all underground utility lines are checked and cleared.

- Planting spaces between trees should be sufficient enough to allow a trees crown (at maturity) to be free from entangling and rubbing with other trees.

- Every pit should be 2-3 times the root ball width and at least the depth of the root ball or the full extent of the root system of bare root trees. In the process of digging the pit, avoid "glazing" the sides of the hole. The root ball shall be located on solid soil and not loose backfill.

- For ball-in-burlap stock; (once the tree has been properly sited in pit) all twine, burlap, and baskets shall be completely removed - regardless of the material used, (plastic, synthetic, wire, or natural materials).

- For all ball-in-burlap, bare root, and container plantings, the backfill should be the soil that was removed from the planting hole. If soil amending is necessary, the entire planting bed should be amended to provide a uniform root zone for the tree.

- Each plant shall be centered and vertically aligned in the pit. The top of the root ball or root collar shall be even with grade for well-drained soils, or raised slightly above grade for poorly drained soils.

- A watering berm shall be constructed around every new tree or shrub when possible. The planting hole shall be thoroughly soaked with water after planting.

- Mulch shall be placed over the trees entire rooting area at a depth no grater than 2-4 inches. Mulch shall be formed in a ring around the trunk, taking care to keep the mulch from coming into contact with the trunk.

- All twine, rope, flagging, and/or plant labels around trunk, branches, and roots shall be removed after planting is completed.

- Pruning of newly planted trees shall be limited to damaged or dead branches for the first 1-2 years after planting, ensuring that trees receive all potential leaves possible promoting better establishment.

- Trees should be staked only where required. All stakes and guy wires will be removed after 1-2 years to prevent girdling of the tree(s).