

JOHNSON COMMUNITY FORESTRY PLAN

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For the Town and Village of Johnson
May, 2016*



Main Street circa 1920 and 2013



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Executive Summary

The Johnson Tree Board's vision for our urban forest is to create a healthy and vibrant community forest that will shade and benefit Johnson's streets and citizens. The Board has crafted a long-term plan for maintenance and protection of the trees that will ensure that our public trees will survive far into the future and act as a template for future plans and caretakers. This will safeguard Johnson's investment in the trees and allow economic and aesthetic benefits to grow as they mature.

This document sets forth a three year plan to help accomplish that vision by setting goals and the actions required to achieve them. Working in conjunction with the Town's Select Board, the Village Trustees, Johnson Works, the Conservation Commission, the Johnson Beautification Committee and the Recreation Committee, the Tree Board will not only maintain the trees' health but plan for future new tree plantings and the overall beauty of our Village streets and public places.

As well, the Tree Board hopes for a greater involvement by the community that will increase the sense of ownership of the trees; in short, the 'urban forest' will become the 'community

forest'. Community outreach and encouragement of volunteer help from within the community will make this happen.

An overview of the conclusions reached in this plan include:

- Johnson has a good start on caring for the town trees but extensive pruning and other maintenance need to be done, particularly on older trees
- Although Johnson's resources are limited, an annual budget needs to be in place, along with pursuit of funding from other sources such as grants
- Training of road crews in tree care, planting methods and hazard tree control is needed
- Attention should be paid to the long term goal of mature and healthy street trees. Development of a Tree Ordinance will help achieve that by providing standards that will aid in tree protection
- Development of performance standards for tree protection during construction is needed
- Johnson is lucky to have a committed Tree Board and a supportive local government



Stearns Street, ca. 1910

Why is a plan necessary?

- Urban trees give the most advantageous cost benefits when they are of mature size. Therefore, a long range maintenance plan is necessary to ensure that Johnson's trees not only survive but thrive well into the future. A long range plan will assure seamless continuity of care as boards and road crews change personnel.
- The existence of this plan will help increase the chances of obtaining grant funding for future projects related to tree care and tree program development.
- The Steering Committee for Form Based Code and the Planning Commission have identified Walkability as a desirable goal for Johnson's future. A healthy, mature urban forest will help achieve that goal by creating a pleasant, enjoyable and comfortable space that invites people to walk, shop and linger.
- A long range maintenance plan will be useful for future environmental and developmental planning.

Purpose

Johnson's urban forest is a valuable asset; one that has been acquired at a significant cost of both money and effort. Improving the quality of all of Johnson's public and private trees over time in ways that optimize the environmental, social, and economic benefits to the town will result in achieving protection of that asset. The goals of this plan are the preservation of the urban forest, increasing the canopy cover in the Village, increasing oversight for the protection of the urban trees, the promotion of new tree plantings, to provide awareness within the community of the importance of trees and tree care, and to promote greater collaboration between the Town and the community as it involves the care of Johnson's trees. The plan will provide a three year guide to achieving them.

A priority is to reclaim the beauty and stately quality of Johnson's Main Street trees. As well, as the summers grow hotter and traffic increases on Main Street, the need for shade and the reduction of particulate pollutants will also increase. A mature, enlarged tree canopy will help alleviate the impacts of both of these problems, not only on public streets but on private land.

This plan will help assure that these goals are attained in a timely, cost effective manner. By adopting it, using it as a guide to long term tree planting and maintenance activities and updating it every three years, the Tree Board feels that Johnson's trees can be safeguarded and made to thrive far into the future.



Main Street from Gould Hill, ca. 1910

Introduction

Johnson is a small community that once enjoyed the ambience of a quaint village along with a busy commercial sector. 100 years ago, the Village's streets, particularly Main Street, were graced by very large maple and elm trees that added great beauty to the town. Sadly, these trees were taken down over time, largely as a result of conflicts with power lines. Until 2012, little or no effort was made to replant these trees or to care for the few trees that still remained. As Main Street was widened over the years, the green of lawns, trees, and gardens was lost from the front yards that were encroached upon by asphalt. In 2012, the Main Street Project was begun. It was a two-year effort that repaved, created new sidewalks and streetlights, and added 46 urban trees to parts of Main Street and Pearl Street. A town green was added as well that contains established old maples as well as a new balsam.

The initial planting of the Main Street trees consisted of damaged trees that were incorrectly planted by a local landscaping business whose responsibility included two years of maintenance. At this time, Johnson's Tree Board was formed by a volunteer Tree Steward who recognized the need for local maintenance and oversight. The Board inspected the trees and urged the Town to request the replacement of the damaged trees. This was done in July,

2013. Subsequently, the replacement of another tree was necessary in 2014 because of a dead leader; it was replaced in December, 2015.

Good soil, aeration, adequate watering, proper planting methods: unfortunately, the trees planted during the Main Street Project were denied these things. No structural soil was used; indeed, the soil in the sidewalk pits and under some of the grass-planted trees consists of no more than gravel and rocks. Watering was minimal. In some cases the wire baskets on these balled and burlapped trees were not removed. Some trees were planted too deep; others too shallow. A leather work glove was even found buried beneath one of the trees, a sure indicator that proper care was not given to planting. In short, many problems exist in these trees that can't be addressed without a considerable expenditure and upset that the Town, Village and community are not willing to shoulder.

No maintenance plan for these trees was put in place by the Town or Village and no budget funding was created. Since the replanting, the Tree Board's five volunteers have been actively engaged in caring for the trees and creating an initial ongoing schedule for maintenance. They have been happy to note the good results of proper pruning, watering and mulching.

Though Johnson had a Tree warden for many years, he was inactive. In 2014, a new Tree Warden, Noel Dodge, was appointed who has taken and will continue to take an interest in the affairs of Johnson's trees. (Noel is a Tree Steward, and a member of the town's Conservation Commission and Tree Board.)

The Main Street project of 2013 was applauded for its design and outcome. Much of that admired beauty is due to its trees; the resulting canopy created an aesthetically pleasing and welcoming environment. As well, there are many other economic and social benefits to trees in the urban environment. Among them:

- Trees provide shade and cooling
- Shade extends the life of pavement
- Trees reduce stormwater run-off and control erosion
- They protect water quality
- Trees promote conservation of energy
- Trees release oxygen and filter air pollutants, removing carbon from the atmosphere
- They increase property values
- Trees make streets, parks, schools, and neighborhoods more liveable.
- Trees provide noise reduction and privacy, creating buffers and screening between buildings
- Trees provide continuity of an historical setting and become, in time, an historical item themselves.
- Trees support mental and physical health of the people who live among them
- Trees also add to a 'sense of place', which contributes to homeowner and community pride

Thus there are many reasons that trees are important to Johnson Village's streets. Also among them are cost benefits, which can be found on the Inventory page.

This plan addresses trees planted in the public Right of Way and in the municipal properties: Whiting Hill Cemetery, Lamoille View Cemetery, Evergreen Ledge Cemetery, Johnson Elementary School, Duba Field, Old Mill Park, Johnson Public Library, Dr. Holcomb House, Johnson Fire Station, and the Johnson Municipal Building. It does not include town-owned conserved areas, which have their own plans, or privately held land, though the same principals would apply.



Main Street parade, ca. 1930



Memorial Day parade, 2015

Note the difference one tree
can make!

Definitions

Crown cleaning: the pruning or thinning of dead, damaged, and diseased branches from the living canopy of a tree. It is the most common tree pruning type arborists perform.

Crown raising: pruning the lowest branches off a tree to create more space for people and vehicles, to improve views under a tree, and to enhance light penetration. This type of pruning helps make a big tree fit in a smaller yard.

Crown reduction: (or crown thinning): the selective removal of branches and stems to reduce the height and/or spread of a tree. Objective: This type of pruning should be done when there is a need to minimize risk of failure of a tree, or reduce interference onto nearby buildings or other structures.

Damage: any action undertaken which causes injury, death or disfigurement of a tree. This includes, but is not limited to, cutting, poisoning, overwatering, relocating or transplanting a tree, or trenching, excavating or paving within the Tree Protection Zone of a tree.

Diameter at breast height (DBH): the diameter of a tree measured at four feet six inches above ground level. The diameter may be calculated by use of the following formula: $DBH = \text{circumference at breast height} \div 3.14$.

Diseased tree: any tree or shrub with a combination of structural defects and/or a health condition, which makes it subject to a high probability of failure.

Forest Diversity: a balanced variety of tree species and ages.

Hazardous tree: any tree or shrub, public or private, with visibly defined structural defects likely to cause failure of all or part of the tree, and be a danger to public safety.

Private Tree: Any tree or shrub or any substantial portion of a tree, shrub, or plant which is on private property along a public right-of-way.

Protected tree: trees protected under Tree Planting, Preservation and Protection Ordinance:

Prune: to cut off or cut back parts to enhance health and structure. The term applies to both above surface and underground cutting;

Public tree: all trees and shrubs on any Village park or other property owned or controlled by the Village on any public street, alley, median, sidewalk, or highway within the public right-of-way, as well as school district trees.

Removal: removal of a tree by cutting to the ground, complete extraction, or killing by spraying, girdling, or any other means.

Right of Way (ROW): an easement for public travel that generally extends beyond the roadway to include sidewalks, ditching, and parking strips. Johnson's ROW extends 25 feet from the center of the road in each direction.

Street tree: any tree planted and/or maintained by the town/village, or recorded as a street tree, adjacent to a street or within a town/village easement or right-of-way on private property, within the street tree easement.

Structural pruning: An arborist will train a tree to grow with a strong, desirable structure. Newly planted trees often have defects that began in the nursery and may need the care that arborists are trained to give them. Undertaken early and judiciously, a young tree can be helped to develop into a mature tree that requires little if no maintenance.

Tree: Any self-supporting woody plant together with its root system, growing upon the earth with one trunk of at least two inches in diameter at a height of four and one-half feet above the ground, or a multi-stemmed trunk system with a definitely formed crown.

Tree Protection Zone (TPZ): the outermost edge of a tree's canopy (or drip line). In certain instances, the TPZ may extend beyond the drip line.

Urban forest: Urban and community forests comprise the trees and associated ecosystems in and around human settlements, specifically those along streets and in town-owned forests, transportation and infrastructure corridors, parks, village greens, schools yards, cemeteries, and private yards.

Urban Forestry: Urban and community forestry entails stewarding, cultivating, and managing trees and associated ecosystems to enhance the benefits trees provide, and empowering citizens to work toward these objectives.

Walkability: The practice of focusing on neighborhood or village scale development that incorporates many close-at-hand things to do and places to go.

The 2014 Johnson Village Street Tree Inventory

In September, 2014, Vermont Urban and Community Forestry program members, Vermont State Lands Forester David Wilcox, and Sue Lovering, Noel Dodge and Lois Frey of Johnson's Tree Board and Conservation Commission conducted an inventory of 363 trees located in Johnson Village's rights-of-way on eighteen streets and seven public properties. Included were all village streets, including Main Street, and Old Mill Park, Duba Field, Legion Field, Whiting Hill Cemetery, Lamoille View Cemetery, Johnson Elementary School and the Johnson Public Library. The inventory also identified twenty potential planting sites on public land.

Contained within the data recorded are date and time of recording, location and GPS location, species identification, condition and diameter at breast height (DBH). If a defect affected more than 40% of a tree, posed a hazard to people or cars, or exhibited possible invasive insect activity, a note was made to monitor the tree. Notes were made on any existing problems and a photo of each tree was taken. This data was assessed with iTree Streets, a free tool developed by the USDA Forest Service and the Davey Tree Sciences Institute, and can be found by accessing the Vermont Agency of Natural Resources' Atlas tool at itreetools.org.

A street tree inventory is invaluable in helping to determine how well trees are performing over time. It can also identify certain problems within certain tree species on different sites. It provides an understanding of the environmental benefits and cost benefits of the Village's trees. This inventory found that the Village trees provide an estimated \$29,003 in annual benefits of stormwater runoff reduction, carbon sequestration, energy savings, increase in property values and improvements in air quality. The tree canopy assessment of the entire inventory area "indicated an existing canopy cover of 50% and a current carbon storage value of over one million dollars."

A private maple on Main Street, 2015



Summary of the Inventory Results

Forest Diversity:

- The Village ROW and public spaces have a 45 different species in 22 different genera.
- The genera of maple, pine, birch, ash, and apple make up 70.25% of the Village's urban forest
- Maple and ash comprise 42.98%; these are threatened by the Asian longhorned beetle and emerald ash borer, respectively
- The top five species that make up the forest are sugar maple (19.01%),

Eastern white pine (14.33%), river and paper birch (8.26%), boxelder (5.79%) and red maple (5.23%).

Totaled, they comprise 50.96% of the Village's urban trees.

Forest Structure:

- 95 trees (26.17%) have a diameter of between six and twelve inches
- 67 trees (18.46%) have a diameter of between zero and three inches
- 61 trees (16.80%) have a diameter of between twelve and eighteen inches
- 56 trees (15.43%) have a diameter of between three and six inches
- 84 trees (23.14%) have a diameter greater than eighteen inches

Forest Cover:

- Together, public and private trees in Johnson Village comprise a canopy of 50%
- Trees could potentially cover an additional 45% of the Village's land surface; as these include grassland, agricultural land, playgrounds and parking lots, it is not a goal of the Tree Board.

Forest Health:

- 280 trees (73.13%) were assessed as being in good condition. The remaining 83 trees were considered to be in fair(12.95%) condition, or in poor (7.99%) condition. Seven inventoried trees (1.93%) were dead.
- 51 trees (14.04%) were flagged as needing monitoring

Benefit Output:

- The total annual energy (electricity and natural gas) benefits of the inventoried trees in Johnson Village are valued at \$14,815.68
- The trees intercept 458,677.99 gallons of rainfall annually, yielding an annual storm water cost benefit of \$3669.42



Main Street, 2015

- They currently store 992,015.27 pounds of carbon annually
- Their annual aesthetic benefit is valued at \$7,591.20
- The public trees have a total average benefit of \$80 per tree, with a cumulative annual benefit of \$29,003. These benefits will grow as the trees mature. There are very few costs to the Town/Village for the return the trees give.

The results of the inventory are clear: there needs to be greater diversification of tree age and species, since the greatest percentage of trees, maple and ash, are in danger of fatal infestation by invasive insects at this time. Planting of young trees will help offset the present fact that 23% of the Village's street trees are at maturity. The majority of the most common species inventoried, sugar maple and eastern white pine, fall within this older age group and should be carefully monitored. Those with a diameter of 18 inches or greater (23%) should be paid especial attention, as they are typically susceptible to stresses associated with urban conditions such as pollution and the use of salt on winter roads.

Monitoring by the Tree Board will be performed on trees flagged as in need of consultation and the dead ones will be removed. As of the writing of this plan, many of those trees have been addressed by the Tree Board and road crew.



Tree Warden Noel
Dodge assesses
Main Street trees

Maintenance

Care of trees, especially street trees, is a long-term commitment of time and resources. Unmanaged trees confront damage, insect infestation, disease and decay; these lead to unsightly, hazardous, or dead trees. Because of their location, street trees are prone to specific issues, such as damage from vehicles, compaction of soil, conflicts with hardscape and utilities and obstruction of sidewalks by canopy. Many problems can be avoided with proper species selection and siting, as well as information gathered as to general fertility and organic matter content of soil, drainage, depth and width of root restriction, windthrow potential, climate, soil compaction and exposure to salinity. Good tree health is vital to longevity and safety. Proper planting, wounds, insects, disease and decay all require a proactive approach to care.

When it is planted, a few things are crucial to insuring a healthy, long-lived tree: good soil, aeration, proper planting methods and adequate watering. Mulching with organic material reduces weed growth and fertilizes the soil as it breaks down. Pruning is necessary for maintaining shape, keeping the crown in good condition and removing dead or broken branches.

At present, almost all of the public tree maintenance is performed by volunteers on the Tree Board, with occasional help from other volunteers. The Village or Town road crews help with digging holes for plantings, cutting dead trees, and pruning of large trees that are inaccessible to the Tree Board. Trees that interfere with utility wires are handled by the utilities.

The Tree Board regularly conducts inspections of trees and provides pruning, composting, weeding, mulching, crown reduction and crown clearance as necessary. Staking and fertilizing are done on an as-needed basis. They inspect for hazardous conditions and recommend to the road crews that such trees be pruned. The Board has been involved in replanting trees that were improperly planted by the landscaping business that provided the trees. Watering during the summer remains the most difficult of the Tree Board's maintenance routine. 55 gallon barrels are carried on one member's pickup truck and filled at the town garage with hoses. The truck is parked next to the tree in question and water dribbles at least 15 gallons per tree out of two hoses. A minimum of two trips to fill the barrels is necessary for each watering session. It is a very time-consuming and labor-intensive undertaking and needs to be done at least twice per week in a drought.

Tree Board envisions a future in which all the public trees are provided with long-term consistent and timely care that will ensure that they live long and prosper.

Goals:

- To continue a proactive and systematic maintenance regime that will include care of trees and planting of new trees in the ROWs and public spaces. Each tree in the Main Street Project plan and in adjoining Village ROWs will be surveyed every year.
- To establish a written inventory that assigns a number to each individual tree and chronicles dated individual care to and condition and needs of each tree. The Tree Board will be able to add information about new trees as they're planted. This will be invaluable in the future as a record of each tree's progress and history and will help the Board achieve their work in a practical manner.
- To follow recommendations in the 2014 Tree Inventory regarding diversification of species and tree age in future plantings and give immediate attention to trees identified as poor or in need of consultation. At least one new tree will be planted each year.
- To maintain our ongoing active survey practice for invasive insects, especially the emerald ash borer and the Asian longhorned beetle.
- To work with the Town/Village to improve the watering situation. The Tree Board will ask the Town/Village to provide a trailer that will allow cars to be available to haul water. Two more barrels will be added to double the watering capacity, allowing the Board to work more quickly. The Board has decided against using gator bags for the present, as there is a fear of theft or vandalism; however, they may reconsider this decision in the future. It is envisioned that the watering problem will be alleviated within two years.

Operations

At this time Johnson has no written policies or bylaws regarding public trees. Road crews who have dealt with trees have had no training; in fact, until the Tree Board began, there was no maintenance plan in place to care for the trees at all. There was no budget beyond as-needed emergency pruning/ removal of hazard trees and cutting in the event of breakage or death and the past Tree Warden was inactive. Recently, this has begun to change. Now we have the Main Street Project trees, which represent a considerable investment that needs to be protected.

The Tree Board has made requests for and received money from the Town and Village for the two Arbor Day celebrations and the Town has been generous in helping with plantings, hole-digging, providing mulch, and moving trees, cages and grates. An annual budget will be put in place for the 2016 fiscal year. The happy fact is that Johnson's street trees' dollar value and cost benefits will increase as they mature if they are well cared for.

A significant move forward has also been made in the new Town Road Foreman. Brian Krause



Johnson's Cold Spring on Main Street, ca. 1920

attended the 2015 Tree Training and has shown more interest in tree care than previous foremen.

There have been several cases of vandalism on the Main Street trees in the past two years. Knife wounds and breakage have been observed. During the fall one of the pin oaks in front of the Municipal Building had its leader broken; the Tree Board could only surmise that someone tried to climb it and caused great

damage. Trash is routinely dumped into the sidewalk grates in front of Wicked Wings and Downtown Restaurants. Damage to cages on those trees by snow removal operations has occurred. Clearly, increased education and oversight is needed and can be accomplished with the adoption of a Tree Ordinance.

The Tree Board envisions that within three years we will have trained road crew personnel, access to certified arborists for more involved care that the Tree Board cannot handle, an established budget and will have put in place standards for tree care and oversight.

Goals:

- To strengthen collaboration between the Johnson's Select Board and Village Trustees, the Beautification Committee and Johnson Works in an effort make cohesive the long-term goal of beautifying the Village and making it a place in which people want to visit and live. All of these groups hold meetings that are open to the public and represent opportunities for exchange of ideas and the creation of plans. A yearly meeting between the Tree Board and the various groups that work toward the improvement of Johnson's village will take place.
- To engage the Public Works Department in those plans by requiring that they attend tree training sessions as they become available. A free tree training sponsored by Vermont Urban and Community Forestry in October, 2015, was an excellent opportunity to learn but was only attended by one member of the Town road crew and none from the Village. It is important that those who work with trees know their fragilities. This plan urges all such municipal employees take advantage of training such as the annual Tree Stewardship Conference, and webinars whenever possible.
- Develop a Tree Ordinance within two years
A Tree Ordinance will detail the Tree Board's, road crews', and Tree Warden's responsibilities, define trees protected by the ordinance, provide standards and requirements for tree planting and maintenance, preservation, protection, and removal and will authorize enforcement for violations. It will prohibit intentional damage to trees on municipal properties and within the ROWs and will detail penalties.
- Develop performance standards for tree protection during construction.
All too often, Johnson's ROW trees are unnecessarily cut down or damaged during road work. This doesn't have to happen. Standards for precautionary care should be set and should include designating pathways for construction vehicles that avoid root compaction and delineating construction disturbance limits out to a tree's dripline. The Tree Board will work with the Town and Village road crews in this endeavor. Taking into consideration the many benefits of mature trees, efforts should be made to save them.
- The Tree Board will work with the Town/Village to compile a list of certified arborists who can be called upon to address work that is beyond the scope of their abilities such as pruning or removal of larger trees. Arborists can provide a source of information as well.

Budget

To date, care of the municipal trees has been a fairly inexpensive procedure. Tree Board members are all volunteers who use their own tools and vehicles to perform tree care. That donated time and labor represents a large dollar amount that the Board is happy to donate. Increased volunteer time from community members will be available as community outreach brings people into the Tree Board's activities. However, this help is limited and will not cover all the needs of Johnson's community forest. Budget requests will cover new trees for planting on Arbor Day and in vacant spaces in the ROWs and other public places, materials such as compost and mulch, and occasional tools that can't be supplied by the Town or Village. Inclusion of a line item in the Town's and Village's budgets will assure ongoing care and protection of our public trees.

Since Johnson has limited resources, the Tree Board will pursue grant funding as it becomes available, including from Vermont Urban and Community Forestry, the Designated Downtown Program, the Vermont Community Foundation, and municipal planning grants.

The Board foresees increased spending on the care of the public trees in the next three years. As so many of Johnson's trees have had no pruning, weeding or mulching in the past, it will take a few years to bring older trees to ideal conditions. During the next three years, the Board expects to address those trees' pruning and mulching as well as care for the new trees.

Goals

- To establish a yearly budget for the upkeep of existing trees and addition of new ones. A budget of \$500 has been submitted to the Town for the fiscal 2016-17 year and a separate budget will be submitted to the Village in April, 2016.
- To continue our ongoing collaboration with Vermont Urban and Community Forestry. VTUCF has been a source of grant money in Johnson three times in the last three years for work done by the Tree Board, the Regional Invasive Insect Preparedness Team, and for Forest Pest First Detector work.
- The Board plans to join Alliance for Community Trees (ACTrees), a nationwide group dedicated to street tree health that offers grant funding.



Pearl Street circa 1927



Main Street's trees of the past are a worthy goal! Ca. 1930

Community Outreach

Johnson's Tree Board was established in March, 2014. Until that time, there was very little town involvement in matters related to trees. Tree maintenance was limited to pruning hazard trees/branches in the roadways and cutting of dead trees. The Tree Board was the first to actively provide proactive care for public trees.

Members of the Tree Board have families and /or full-time jobs, which limit their available time to work on the trees; typically, they work on weekends and evenings. The Town and Village road crews, with whom they work, are only available before 3:00 on weekdays. Therefore, it's of vital importance that the Tree Board has a pool of enthusiastic and knowledgeable volunteers who are able to join in the work and that communication with the Public Works Department is excellent. The Tree Board regularly encourages citizens to volunteer with helping care for the Main Street trees. As it is in many small towns, unless there is grant money available, there are no funds with which to entice people to work. The need to combine *all* of the town's resources, human as well as material, is great.

Reaching out to other groups in town in an effort to identify individuals willing to get involved may be helpful toward expanding a broader vision of beautifying Johnson. It will be beneficial to combine the efforts and goals of the Tree Board together with those of the Johnson Works group and the Johnson Beautification Committee.

Engagement of the community is crucial to growing interest in the Tree Board and subsequently in Johnson's urban trees. Drawing in potential volunteers who can not only help with the care of trees but engage others to do so is one goal of this plan. Another is to engage the public to increase awareness of the benefits of trees and of the laws pertaining to tree protection.

Goals:

- Plans are in place to hold an annual 'all-day tree care Saturday' in the spring that will draw community members to help weed, mulch, haul brush from pruning, and any other basic maintenance chore, in the hope that it will become a yearly event. Helpers will learn about tree care as well as make the Tree Board's job easier. As well, such involvement will result in greater community interest and participation.
- The Board will continue its informative presentations at Johnson's Tuesday Night Live summer concert series. The series is known throughout the county and beyond as a popular destination; it consistently hosts 300 to 600 people of all ages on each of its nine evenings. The Tree Board sponsors an informational display at each concert about the basics of tree care, tree identification, how to choose a tree, invasive insects, what not to do to a tree, etc. Literature is handed out to folks of all ages. There has been interest from an impressive number of schoolchildren. Each one of them has the potential to take that information back to the home and school.
- A community workshop will be offered to private landowners in an effort to increase knowledge about planting and tree care. The Tree Board is fortunate to have two Vermont Tree Stewards as members (Sue Lovering and Noel Dodge); they are qualified

to educate the public and can draw on the extensive resources offered by the SOUL program and the Vermont Urban and Community Forests program.

- Johnson had its first Arbor Day celebration in 2014 with the planting of two sugar maples on the Elementary School playground. In 2015, a crab apple was planted at the Public Library. In each case, many school children helped celebrate and plant trees; in 2014, each child potted and took home a tiny oak seedling. Instilling a love and sense of responsibility for trees in young kids can result in a lifelong practice of stewardship for the forest and is therefore a desirable goal. The Tree Board will make the celebration of Arbor Day an annual
- event and one that will become more important to the community as time goes on. Each year at least one tree will be planted and related educational activities will take place.

2016 will see a sugar maple planted on the lawn of the Johnson Historical Society's new museum, the Dr. Holcomb House.



Mrs. Smith's fourth grade class celebrates Arbor Day at the

Johnson Elementary School in 2014



Johnson's after-school program at the Library celebrated Arbor Day in 2015 with the planting of a Snowdrift Crab Apple tree and 30 potted oak seedlings to take home



"It is well that you should celebrate your Arbor Day thoughtfully, for within your lifetime the nation's need of trees will become serious. We of an older generation can get along with what we have, though with growing hardship; but in your full manhood and womanhood you will want what nature once so bountifully supplied and man so thoughtlessly destroyed; and because of that want you will reproach us, not for what we have used, but for what we have wasted."

President Theodore Roosevelt
Arbor Day message, 1907

Future plans

This plan is intended to be used as a guide for the next five years. During or after that time the following goals may be considered:

- More canopy cover in the Village should be pursued, particularly in the shopping center. Although it is private land, a large payoff in the desirability of a cooler, more aesthetically pleasing place to shop, as well as increased stormwater runoff control in a flood plain would make some justification for collaboration between private and public investment.
- Future work on Main Street could encourage the installations of rain gardens instead of grassy strips along the sidewalks. Rain gardens are proven to help control stormwater runoff as well as add to the aesthetic value of the streets.
- New technologies should be used. New construction should utilize permeable asphalt and structural soil for tree plantings in sidewalks and cramped areas.
- In future developments, preservation of existing greenbelts and significant trees should be required.
- A neighborhood reforestation program might be enacted. Areas such as Katy Win Park and the Wescom Street trailer park would benefit greatly from the addition of shade trees.

Conclusion

This plan will serve our street trees well. The Tree Board hopes that it will act as a stepping stone toward a future filled with healthy, productive street trees and will provide a foundation for future expanded plans. In order for that to happen, it must be adopted by Johnson's governing administration and road crews, as well as the Tree Board and community participants.

Appendices

1 Maps from inventory

2 Tree Board Bylaws

Johnson Tree Board Bylaws

Article 1

Name of the Board and Mission Statement

This association will be called the Johnson Tree Board.

The Tree Board's vision is to initiate a community tree stewardship program, to maintain the municipal trees, to promote education, tree plantings, and ecological awareness, and to enhance the visual beauty of Johnson.

Article 2

Purpose of the Tree Board

I

- A. The Tree Board will consult with and advise town officials on tree related issues.
- B. The Board will develop, update, and administer a written master plan for the purpose of tree care, preservation, pruning, planting, removal and replanting of street trees and shrubs, and all other public trees. They will create and maintain an inventory of public Village trees and shrubs.
- C. The Tree Board will strive to increase public awareness of the value and need for care of the municipal trees.
- D. They will create and review annually a budget that reflects the needs of town trees and the master plan.
- E. The Tree Board serves solely in an advisory capacity; they hold no legislative or administrative authority.

Article 3

Membership

- A. The voting membership of the Tree Board will consist of five members, with the option of adding two more seats. All members will reside in Johnson.
- B. The Selectboard will appoint new members to three-year terms of office and/or appoint new members to complete a term. Selection process will take

into consideration the continuity of the existing Tree Board members. The Board will discuss and send approval of prospective new members to the Selectboard.

- C. The Tree Warden is an ex-officio member.
- D. In the event of a member's resignation or inability to serve, or an absence of three consecutive meetings, the Selectboard will appoint a member to complete that person's unexpired term.

Article 4 Meetings

- A. The Tree Board will meet each month except December, on the third Wednesday of the month, at the Johnson Public Library, at 6:30 p.m..
- B. Random meetings for hands-on tree care will be agreed upon as needed by the membership.
- C. A quorum will consist of a majority of the group; in the case of five members, a quorum will consist of no fewer than three.
- D. All meetings will be open to the public.
Meetings will be conducted under "Robert's Rules of Order".
- E. Majority recommendations of the Tree Board will be published in the minutes.

Article 5 Special Meetings

- A. The Chairperson may direct the Secretary to poll the Tree Board members on any matter requiring immediate action prior to the next scheduled meeting. A majority vote is required in order to take action, which will then be incorporated into the next meeting's minutes.
- B. The Chairperson may call a special meeting.

Article 6 Officers

The officers of the Tree Board will consist of a Chair, Vice-Chair, Secretary, and Treasurer, who will be elected at the May meeting for a term of one year or until a successor will be elected.

Article 7 Duties of Officers

- A. The Chair shall establish the agenda, preside at meetings, represent the Tree Board at public affairs, and assure the accuracy of the Tree Board's reports, and submit an annual report to the Selectboard.
- B. The Vice-Chair will act in the Chair's absence.
- C. The Secretary will keep a record of the Tree Board's proceedings. He/she will notify all members of all meetings, take the monthly meeting minutes, send copies to each Board member, and submit them to the Municipal offices.
- D. The Treasurer will obtain a yearly expenditures report from the Town Clerk to assist the Board in drafting the new year's budget and submit a year-end report.

Article 8
Duties of Members

- A. Tree Board members will deal officially with Board members as an entire body and will not make arbitrary decisions regarding their activities without first consulting the Board.
- B. Members will make their best effort to attend every meeting.
- C. Each member may be responsible to be a liaison to other Town boards, reporting back to the Tree Board.

Budget

The Board will prepare, with the cooperation of the majority of its members, the annual budget based on previous expenditures and anticipated costs for the coming year. The budget will list the necessary appropriations by activity and will be submitted for the Town warning through proper channels. This will be accomplished at the November meeting.

Article 10
Amendments

These rules may be amended or repealed at any meeting by a two-thirds vote of the Board.

June 7, 2014

3 VERMONT TREE WARDEN STATUTES

TITLE 24: Municipal and County Government

CHAPTER 033: MUNICIPAL OFFICERS GENERALLY

§ 871. Organization of selectmen; appointments

Forthwith after their election and qualification, the selectmen shall organize and elect a chairman and, if so voted, a clerk from among their number, and file a certificate of such election for record in the office of the town clerk. Such selectmen shall thereupon appoint from among the legally qualified voters the following officers who shall serve until their successors are appointed and qualified, and shall certify such appointments to the town clerk who shall record the same:

1. Three fence viewers;
2. A poundkeeper, for each pound; voting residence in the town need not be a qualification for this office provided appointee gives his consent to the appointment;
3. One or more inspectors of lumber, shingles and wood;

4. One or more weighers of coal; and
5. A tree warden. (Amended 1963, No. 74, § 2.)

TITLE 24: Municipal and County Government

CHAPTER 067: PARKS AND SHADE TREES

§ 2502. Tree wardens and preservation of shade trees

Shade and ornamental trees within the limits of public ways and places shall be under the control of the tree warden. The tree warden may plan and implement a town or community shade tree preservation program for the purpose of shading and beautifying public ways and places by planting new trees and shrubs; by maintaining the health, appearance and safety of existing trees through feeding, pruning and protecting them from noxious insect and disease pests and by removing diseased, dying or dead trees which create a hazard to public safety or threaten the effectiveness of disease or insect control programs. (Amended 1969, No. 238 (Adj. Sess.), § 1.)

§ 2503. Appropriations

A municipality may appropriate a sum of money to be expended by the tree warden, or if one is not appointed, by the mayor, aldermen, selectmen or trustees for the purpose of carrying out this chapter. (Amended 1969, No. 238 (Adj. Sess.), § 2.)

§ 2504. Removal of trees, exception

The tree warden may remove or cause to be removed from the public ways or places all trees and other plants upon which noxious insects or tree diseases naturally breed. However, where an owner or lessee of abutting real estate shall annually, to the satisfaction of such warden, control all insect pests or tree diseases upon the trees and other plants within the limits of a highway or place abutting such real estate, such trees and plants shall not be removed. (Amended 1969, No. 238 (Adj. Sess.), § 3.)

§ 2505. Deputy tree wardens

A tree warden may appoint deputy tree wardens and dismiss them at pleasure.

§ 2506. Regulations for protection of trees

A tree warden shall enforce all laws relating to public shade trees and may prescribe such rules and regulations for the planting, protection, care or removal of public shade trees as he deems expedient. Such regulations shall become effective pursuant to the provisions of chapter 59 of this title. (Amended 1969, No. 238 (Adj. Sess.), § 4.)

§ 2507. Cooperation

The tree warden may enter into financial or other agreements with the owners of land adjoining or facing public ways and places for the purpose of encouraging and effecting a community wide shade tree planting and preservation program. He may cooperate with federal, state, county or other municipal governments, agencies or other public or private organizations or individuals and may accept such funds, equipment, supplies or services from organizations and individuals, or others, as deemed appropriate for use in carrying out the purposes of this chapter. (Amended 1969, No. 238 Adj. Sess.), § 5.)

§ 2508. Cutting shade trees; regulations

Unless otherwise provided, a public shade tree shall not be cut or removed, in whole or in part, except by a tree warden or his deputy or by a person having the written permission of a tree warden.

§ 2509. - Hearing

A public shade tree within the residential part of a municipality shall not be felled without a public hearing by the tree warden, except that when it is infested with or infected by a recognized tree pest, or when it constitutes a hazard to public safety, no hearing shall be required. In all cases the decision of the tree warden shall be final except that when the tree warden is an interested party or when a party in interest so requests in writing, such final

decision shall be made by the legislative body of the municipality. (Amended 1969, No. 238 (Adj. Sess.), § 6.)

§ 2510. - Penalty

Whoever shall, willfully, mar or deface a public shade tree without the written permission of a tree warden or legislative body of the municipality shall be fined not more than \$50.00 for the use of the municipality. Any person who, willfully, critically injures or cuts down a public shade tree without written permission of the tree warden, or the legislative body of the municipality shall be fined not more than \$500.00 for each tree so injured or cut, for the use of the municipality. (Amended 1969, No. 238 (Adj. Sess.), § 7.)

§ 2511. Control of infestations

When an insect or disease pest infestation upon or in public or private shade trees threatens other public or private trees, is considered detrimental to a community shade tree preservation program or threatens the public safety, the tree warden may request surveys and recommendations for control action from the commissioner of agriculture, food and markets. On recommendation of the commissioner of agriculture, food and markets, the tree warden may designate areas threatened or affected in which control measures are to be applied and shall publish notice of the proposal in one or more newspapers having a general circulation in the area in which control measures are to be undertaken. On recommendation of the commissioner, the tree warden may apply measures of infestation control on public and private land to any trees, shrubs or plants thereon harboring or which may harbor the threatening insect or disease pest. He may enter into agreements with owners of such lands covering the control work on their lands, but the failure of the tree warden to negotiate with any owner shall not impair his right to enter on the lands of said owner to conduct recommended control measures, the cost of which shall be paid by the municipality. (Amended 1969, No. 238 (Adj. Sess.), § 8.)

§ 2512. Repealed. 1969, No. 238 (Adj. Sess.), § 9.

TITLE 32: Taxation and Finance

CHAPTER 017: FEES AND COSTS

§ 1680. Tree warden

When a town or incorporated village fails to fix the compensation of a tree warden or his deputies, they shall receive such compensation as the selectmen or trustees determine.

Other Statutes Related to Trees

TITLE 30: Public Service

CHAPTER 071: TELEGRAPH, TELEPHONE AND ELECTRIC WIRES

§ 2506. Trees not to be injured; exception; penalty

A tree within a street or highway shall not be cut or injured in constructing, maintaining or repairing a line of wires, without the written consent of the adjoining owner or occupant, unless the transportation board or the selectmen of the town in which the tree is situated, after due notice to the parties and upon hearing, shall decide that such cutting or injury is necessary. A person or corporation cutting or injuring such trees shall pay the damages, if any, awarded on such hearing, before cutting or injuring the trees. A person or corporation that violates a provision of this section shall be fined not more than \$50.00 nor less than \$5.00 for each tree so cut or injured. (Amended 1989, No. 246 (Adj. Sess.), § 31.)

TITLE 13: Crimes and Criminal Procedure

CHAPTER 077: TREES AND PLANTS

§ 3606. Treble damages for conversion of trees or defacing marks on logs

If a person cuts down, destroys or carries away any tree or trees placed or growing for any use or purpose whatsoever, or timber, wood, or underwood standing, lying or growing belonging to another person, without leave from the owner of such trees, timber, wood, or underwood, or cuts out, alters or defaces the mark of a log or other valuable timber, in a

river or other place, the party injured may recover of such person treble damages in an action on this statute. However, if it appears on trial that the defendant acted through mistake, or had good reason to believe that the trees, timber, wood, or underwood belonged to him, or that he had a legal right to perform the acts complained of, the plaintiff shall recover single damages only, with costs. (Amended 1959, No. 61, eff. March 26, 1959.)

TITLE 19: Highways

CHAPTER 009: REPAIRS, MAINTENANCE AND IMPROVEMENTS

§ 901. Removal of roadside growth

A person, other than the abutting landowner, shall not cut, trim, remove or otherwise damage any grasses, shrubs, vines, or trees growing within the limits of a state or town highway, without first having obtained the consent of the agency for state highways or the board of selectmen for town highways.

(Added 1985, No. 269 (Adj. Sess.), § 1.)

§ 902. Penalty for removal

A person who willfully or maliciously cuts, trims, removes or otherwise damages grasses, shrubs, vines or trees within highway limits in violation of section 901 of this title shall be fined not more than \$100.00

nor less than \$10.00, for each offense. (Added 1985, No. 269 (Adj. Sess.), § 1.)

§ 903. Agreements for planting

The agency or the board of selectmen may enter into agreements with individuals or organizations who wish to plant grasses, shrubs, vines, trees or flowers within highway limits. (Added 1985, No. 269 (Adj.

Sess.), § 1.)

§ 904. Brush removal

The selectmen of a town, if necessary, shall cause to be cut and burned, or removed from within the

limits of the highways under their care, trees and bushes which obstruct the view of the material or scenic standpoint. Shade and fruit trees that have been set out or marked by the abutting landowners shall be preserved if the usefulness or safety of the highway is not impaired. Young trees standing at a proper distance from the roadbed and from each other, and banks and hedges of bushes that serve as a protection to the highway or add beauty to the roadside, shall be preserved. On state highways, the secretary shall have the same authority as the selectmen. (Added 1985, No. 269 (Adj. Sess.), § 1

4 Resources

Town of Johnson:

Municipal Manager Duncan Hastings

Public Works Department Foreman Brian Krause

Village of Johnson

Municipal Manager Sandy Miller

Public Works Department Foreman Troy Dolan

Tree Board

Sue Lovering, Chair
Court Perry
Noel Dodge
Louise von Weise
Dorcas Jones

Tree Warden Noel Dodge

Conservation Commission

Lois Frey, Chair
Sue Lovering
Noel Dodge
Eric Nuse
Louise von Weis
Laura Branca
Dean Locke
Ann Marie Bahr

Regional Invasive Insect Preparedness Team

Sue Lovering, Chair
Lois Frey
Fran Sladyk
Jared Nunnery
Ron Stancliff
Nat Kinney
Phil Wilson
Meghan Wilson
Mike Green
Monique Gerbe
Sarah Packer
Taylar Foster

Sue Lovering: Vermont Tree Steward, SOUL Program, Forest Pest First Detector

Noel Dodge: SOUL Program

Lower Main Street, ca. 1927

