INCREASING TREE WARDEN EDUCATION AND SKILLS THROUGH VOLUNTARY CERTIFICATION IN CONNECTICUT

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Abstract

Since 1991, Connecticut state law mandates the appointment of a Tree Warden by the chief elected official in each of the states 169 municipalities. The Tree Warden then assumes complete responsibility for public trees in that city, town or borough. A major, if not the primary, responsibility of municipal government is public safety. Local government, however, is also charged with protecting and enhancing the economic, social, environmental well-being of the community and its citizens. Tree Warden has the delicate task of balancing public safety and public tree, urban forest conservation. This is only possible when Tree Wardens are well trained, skilled, experienced and supported. Curiously, however, the Tree Warden statute does not require them to possess any relevant qualifications (e.g., education, training, certification, licensing, or experience).

In 1991 a needs assessment was conducted to determine what qualifications Tree Wardens in fact possess or lack, what training and education they might receive and what tasks they most frequently perform. With information garnered from this survey, several primary educational approaches were taken to increase Tree Wardens' knowledge and skills. These were the incorporation of a state-wide Tree Wardens' Association of Connecticut, Inc., the writing, printing and distribution of a Tree Warden manual, development of workshops and field days, and development of the Tree Warden School and certification program. A ten-year, follow-up assessment was conducted to evaluate these efforts.

This paper summarizes and compares the results of two needs assessments. It also reports on recently developed Tree Warden Association, School and Certification Program that were developed as a result of these assessments.

TREE WARDENS AND COMMUNITY FORESTRY

The first municipal tree protection laws in the United States were passed in colonial New England (Vermont, New Hampshire, Maine, Massachusetts, Rhode Island and Connecticut). For example, in 1636 – only sixteen years after the English Puritans (Pilgrims) arrived in Massachusetts Bay Colony – the Town of Boston issued an order “to prevent the trees being planted in the settlement from being spoiled.” The first community-based forest conservation group was founded in 1846 in Keene, New Hampshire, “to see if the town will permit the Forest Tree Society to fence in and ornament with trees a small portion of the Common.”
However, the first state-wide laws mandating the care of municipally owned trees in all towns, cities and towns in a state did not appear until much latter. The Tree Warden laws enacted during this period in all six New England states provide the earliest examples of state urban forestry laws. These statutes required (or enabled) local municipalities appoint Tree Wardens. In 1899 Massachusetts passed the first Tree Warden statute with the other five New England states following suit with laws modeled on the Massachusetts law but not exactly.

It has been a hundred years since these laws were passed. The forest (both rural and urban) has changed. More roads, people, buildings, pollution, and other factors detrimental to tree health and survival exist today. Our society is also more litigious. Public safety and tree conservation are the priorities of the Tree Warden in the current era. Tree Wardens must balance the need to identify and cause the removal of high risk trees while, at the same time, maintaining a canopy of public trees that enhance community well-being.

NEEDS ASSESSMENT

Ten years after the first Tree Wardens needs assessment was completed in 1991, it was appropriate to see what, if any, gains had been made and what needed to be improved regarding Tree Warden training. Therefore, questions from the first survey where repeated in the 2001 survey so that differences could be explored. New questions were also added. Goals were the same in 2001 as they were in 1991:

1. Establish a broad base of information on the skill, training, education, activities and interest level of Connecticut Tree Warden.
2. Gather information that would help guide urban and community forestry educators in developing training programs and print materials for Tree Wardens.
3. Justify program expenditures and efforts based on empirical data.
4. Act on recommendations.

Survey Methods

A survey was sent to all Tree Wardens on the 2000 mailing list. Great care and attention is given in continuously updating this list. Each Tree Warden received a cover letter, a four page survey form, and a self-addressed, stamped return envelope. These were returned to the University of Connecticut. All questions resulted in categorical data and required only simple descriptive statistical analysis. Data was entered and analyzed with EXCEL. Out of the 169 surveys mailed, 97 were completed and returned, a 57% rate of return.
Results

Tree Warden Profile

Most Tree Wardens (68%) (Figure 1) are municipal employees in the communities they serve (Figure 1). The average number of years Tree Wardens have served is 10.5 years with one individual reporting being appointed 31 years (the high) ago and eleven Tree Wardens reporting being appointed in 2001 (the low). More than half of the respondents (n=58), or 61%, were appointed in the last ten years.

![Bar chart showing municipal and non-municipal employees serving as Tree Wardens.]

Figure 1: Total number of municipal employees and non-municipal employees whom serve as Tree Wardens (n=96).

Of those Tree Wardens who are municipal employees, almost half (46%) (Figure 2) reported that they are directors of public works (one reported being the assistant director). Road Foreman was second (19%), Tree Warden was third (12%), and so forth.

![Bar chart showing job titles for municipal Tree Wardens.]

Figure 2: Job titles for the 56 responding Tree Wardens who are municipal employees.
Of the Tree Wardens who are not municipal employees, no one discipline stood out (Figure 3). Most were in a “green industry” or natural resource discipline (arborist, 18%; landscape architect, 12%; nurseryman, 12%; forester, 6%). Retired was the largest category at 28%.

![Figure 3: Titles of 17 responding Tree Wardens who are non-municipal employees.](image)

As for level of education of the 90 Tree Wardens responding to the question, 54 possess a college degree while 36 do not. Fifty-seven percent possess professional certificates and/or licenses. These include Connecticut arborist license (25), registered landscape architect (4), custom grounds license (8), certified forester practitioner (2), International Society of Arboriculture certification (4), certified leisure protection (1), University of Connecticut Road Master (1), and Massachusetts Certified Arborist. Slightly more than half of the respondents belong to professional organizations (other than the Tree Wardens’ Association of Connecticut, Inc.) (22 (n=82) are members of the Connecticut Tree Protective Association).

**Tree Warden Work**

Risk tree assessment was considered the most important duty for 60% of the respondents (Figure 4) in 2001. Tree removal (19%) was the most important duty considered for another 1/5th of the Tree Wardens. Public safety (10%), a duty that might involve risk tree and/or sight-line assessment, was ranked next.
Figure 4: The duties of responding Tree Wardens (n=97) considered in regards to the duty considered to be the second most important by responding Tree Wardens, three duties were about of equal importance to more than 60% of the respondents (Figure 5); tree removal (27%), responding to complaints (21%), and public safety (20%).

Figure 5: The duties of responding Tree Wardens (n=79) considered the second most important.

In contrast to what Tree Wardens consider to be the most important duties a Tree Warden must attend to, a philosophical question, are the tasks that they actually perform in their operations. Figure 6 illustrates this. Risk tree management is the task performed by 39% of the respondents, followed by tree removal (26%), combining for 67% of the total. Both traits may be similar in that tree removal, obviously, eliminates a tree as risk. Fielding questions is the third task performed (15%).
State law mandates that Tree Wardens post public trees ten days prior to removal or pruning. Seventy-eight (93%) respondents stated they post trees prior to pruning and/or removal while six (7%) do not (n=84).

A public hearing may be requested by a person to the Tree Warden. The person requesting the hearing must request this in writing within the ten day posted period. The Tree Warden shall then hold a public hearing at a reasonable time. Public tree hearings have been conducted by half of the respondents (n=88).

Tree Warden Continuing Education

In 1997 the Tree Wardens' Association of Connecticut, Inc. and University of Connecticut Cooperative Extension System initiated the Tree Warden School and Certification Program with the first class of 30 participants held in the fall of 1998. All participants passed the final exam given on the last day with a minimum grade of 70%. Graduates were then designated Certified Tree Wardens. They must now obtain at least 15 continuing education credits in a three year period to maintain certification.

Of the 96 Tree Wardens responding, half (51%) stated that they were Certified Tree Wardens (Figure 7). Fifty-nine percent (n=90) of the Tree Wardens stated that they had attended a Tree Wardens Association sponsored workshop in the past three years. Of these, 93% stated that the workshops increased their skills and knowledge (Figure 7). Sixty-four percent of the Tree Wardens responding (n=94) have also attended other workshops (Figure 8) with the Tree Wardens having increased their knowledge and skills (94%) at these as well (Figure 9). Seventy-nine percent stated that they have received training in risk tree assessment.
Figure 7: Of those responding Tree Wardens who attend Tree Warden Association workshops, the percentage of those who thought the workshops increased their skills and knowledge (n=59).

Figure 8: The percentage of responding Tree Wardens who have attended workshop sponsored by other organizations or agencies in the past three years (n=94).

Figure 9: Of those responding Tree Wardens who attend workshops by other organizations or agencies, the percentage of those who thought the workshops increased their skills and knowledge (n=62).
Community Tree Programs

Less than 37% of the communities with responding Tree Wardens have shade tree ordinances (Figure 10).

![Pie chart showing 37% with shade tree ordinances and 63% without](image)

Figure 10: The percentage of towns of the responding Tree Wardens with shade tree ordinances (n=70).

Less than half (45%) of the Tree Wardens responding (n=91) said that their community had a tree replacement program. Of those communities with a program the range of annual expenditures was a maximum of $112,500 and a minimum of $200 and a $17,544 average. Exactly 50% (44 respondents) stated that they had received either grant or private contributions for tree replacement. Twenty-two percent of the responding Tree Wardens stated that they have tree inventories (Figure 11).

![Pie chart showing 22% with tree inventories and 78% without](image)

Figure 11: The percentage of towns of the responding Tree Wardens with tree inventories (n=92).

Of the 89 Tree Wardens responding, 64% stated that their crews are not trained in tree care, while 36% are. However, and most importantly, fifty-one out 61 respondents stated they would welcome tree care training opportunities for their crews. Responding Tree Wardens are in general satisfied with utility line tree maintenance performed in their community (Figure 12).

![Pie chart showing 78% satisfied and 22% not satisfied](image)

Figure 12: The percentage of responding Tree Wardens who indicated satisfaction with utility line tree maintenance performed in their community (n=90).

More than half (63%) of the responding Tree Wardens (n=90) stated that they routinely supervise and/or inspect utility tree maintenance crews when in their communities. Less than half (35%)
of the responding Tree Wardens (n=94) stated that there are tree related citizen organizations in their communities. These included a Tree Committee (1), green preservation associations (2), garden clubs (6), Knox Park Foundation (1), land trust (1), millennium trees (1), and a neighborhood organization (1). The majority (93%, n=29) had a favorable working relationship with the citizen tree organization. Two respondents had a poor working relationship with their citizen organization.

Connecticut Tree Law

When asked if they believed existing state laws are adequate in helping protect, care for and maintain the public trees in their community while providing for public safety at the same time, 84% said yes (n=89) while 16% said no. Sixty-nine percent stated that they would like to see the state statutes changed to require continuing education for Tree Wardens (n=89) while 62% went so far as to state that they favor professional accreditation for and/or licensure of Tree Wardens. Half indicated that they prefer that certification of Tree Wardens remain voluntary.

Tree Wardens’ Association

Out of 83 respondents, 82% are members of the Tree Wardens’ Association of Connecticut, Inc. Of these 57 stated that they are generally satisfied with what the organization has done since it was founded in 1992 while two are not. Reasons for not joining were: “not interested” (two respondents), “not enough time” (two respondents), and “never thought of it” (one respondent).

COMPARISONS WITH THE 1991 SURVEY

In 1991 more than half (66%) of the Tree Wardens reported that they were municipal employees and this remained about the same (68%) in 2001. Of those reporting to be municipal employees, public works directors were the greatest job title report in both years, just under half. Other positions remain proportionally about the same. The only change, interestingly enough, was the reporting of first selectman. In 2001 only 6% of the Tree Wardens reporting was first selectman, down from 15% in 1991. In 1991 67% reported possessing college degrees; in 2001 it was about the same. Regarding Tree Wardens who reported having certificates, the percentage was about the same (more than half) in both years.

A major difference between years is that the percentage of Tree Wardens reporting risk tree management to be their most important duty in 2001 was 60% while in 1991 it was only 27%. Tree removal, the second most important task, was about the same in both years. However, when asked what they spend their time doing (what tasks they perform most regularly, risk tree management was about the same (39%, 2001; 33%, 1991). This is interesting in that it seems that in ten years awareness of risk tree management has increased dramatically, actually applying it is another matter altogether. In the 2001 survey more than half of the respondents stated that they have attended Tree Warden Association sponsored workshops. Sixty-three percent stated that they had attended workshops sponsored by other organizations or agencies. This number
was up from 47% in 1991. In 2001 93% of the Tree Wardens stated that the training was worthwhile, up slightly from 85% in 1991.

The shade tree ordinances were up from 23% in 1991 to 37% in 2001. Tree replacement programs were up from 26% (1991) to 45% (2001). Twelve percent of the communities had some form of tree inventory in 1991 which increased to 22% in 2001. In 1991 less than half (40%) indicated that they had community tree groups in their town. In 2001 this statistic decreased to 35%. A vast majority of respondents (81%) stated that they were generally satisfied with utility tree trimming and removal practices. This percentage decreased only slightly in 2001 to 78%. In both years Tree Wardens felt that existing state Tree Warden Statutes are adequate in helping them protect, care for and maintain the public trees in the communities. In both years, again, the majority of Tree Wardens believed that they would like to see that state statutes changed to require continuing education. In 1991 87% of the respondents thought it would be good if a Tree Warden Association was created. In 1992 this came to pass. And in 2001 82% of the respondents stated that they belonged to the organization.

CONCLUSIONS AND RECOMMENDATIONS

An important purpose of this survey was to see whether or not progress had been made in ten years concerning the effectiveness of Tree Wardens. It is fair to conclude that there has been:

1. Increased recognition of the importance of risk tree management.
2. Greater appreciation of continuing education.
3. Increased tree replacement.
4. Recognition of the importance of the Tree Wardens' Association of Connecticut, Inc.
5. Recognition of the importance of the Tree Wardens School and Certification Program.

However, applying what is learned in the classroom, through peer-to-peer contact, and through experience, on a daily basis, remains difficult for most Tree Wardens. This seems to be due more to a lack of time than the will to participate. Therefore, based on this survey and in consideration of ten years of change since the first survey in 1991, the following recommendations were made:

1. Continue support of the Tree Warden Association.
2. Increase membership and member participation in association activities.
3. Continue the Tree Warden School as demand dictates.
4. Maintain strong continuing education opportunities for Tree Wardens.
5. Provide training to municipal.
6. Continue to integrate Tree Wardens into the variety of community forestry organizations and activities around the state and within their communities.
7. Increase public awareness of the responsibilities and duties of Tree Wardens.
8. Increase understanding and appreciation of Tree Wardens with municipal leaders, especially with chief elected officials.
REFERENCES


