## Tree Inventories *continued from page 9*

for managing tree insect or disease problems, conducting an ecological analysis or assessing diversity. A strong public awareness effort should be part of any plan to inventory trees on private property.

Park trees are sometimes excluded from a community tree inventory, or are surveyed separately. Conducting an inventory of park trees can be time consuming and some feel that because most park trees require less overall maintenance than street trees, the need for a park tree inventory is less urgent. Even if park tree maintenance is not performed on a regular basis, park trees should be inventoried often to assess hazards, if nothing else.

**Time of Year**

Different kinds of information are more easily gathered at different times of the year. Although most inventories are done when trees are in leaf, hazard tree inventories are often conducted twice in a given year. Broken and hanging limbs, wounds, cracks and weak branch unions are easier to see when leaves are down. A follow-up survey when trees are in leaf helps to evaluate overall tree health and makes it easier to distinguish between dead and live branches. An inventory to assess specific insect or disease problems should be timed to coincide with the appearance of signs and symptoms.

**Taking to the Streets**

Inventory data can be collected by municipal staff, consultants, student interns or volunteers. Using volunteers has the advantages of built-in public awareness, education and ownership, along with reduced cost. Drawbacks include greater training requirements and higher potential for unreliable information. Volunteer or paid, anyone who gathers and records field data must be adequately trained to ensure information is accurate and complete. An initial training session might include a practice inventory of one street or block. Field personnel should learn not only inventory mechanics, but also the inventory objectives. They should be able to respond intelligently to resident questions. Field personnel can be supplied with informational handouts to limit the amount of time spent in conversation with residents.

Public notice via news media is a good way to promote the inventory and its importance, and it may reduce inquiries when field personnel are on site. If uniforms aren't worn, an identifying vest, jacket or hat should minimize "suspicious persons" calls to the police. Even so, it's a good idea to keep the local police department, as well as other municipal departments, informed about the project and the general whereabouts of field personnel.

**Storing and Maintaining Data**

Although some very small communities may find index cards or log books entirely adequate for storing inventory data, most communities benefit from the ease and speed with which computerized systems can store, update, sort, retrieve and summarize data. The fall, 1994 issue of this newsletter contains an article comparing various popular inventory software systems.

Whether using a computerized or manual system, inventories must be updated or they quickly become obsolete. Updating can be accomplished in a couple of different ways.

1) Record all tree work as it is performed. Keep a supply of blank data sheets in all work vehicles. Data can then be entered from field sheets into the computer or written record at some other time.

2) Randomly pick blocks or streets to be re-inventoried on a rotating basis so that all trees are visited at least once every ten years. Combining this type of updating with routine pruning is very cost effective.

With either type of periodic updating, plan on doing a community-wide re-inventory from time to time. Storm damage, unauthorized tree work, lost data sheets and similar circumstances will eventually make the inventory inaccurate.

**Data Analysis and Reports**

Computerized inventories can be manipulated to quickly generate various data summaries. Data can also be analyzed for averages, weighted averages, increases, decreases, trends and patterns, all of which can have management implications. Depending on management objectives, data can be synthesized to

*continued on next page*

### *Predict the Future!*

Computerized inventory data can also be used to evaluate various future management options using a computer simulation program called CITY TREES! The program, developed by Dr. Bob Miller at UW Stevens Point, simulates the effect of management decisions on the tree population over time. It can be used, for example, to determine the least damaging management action to take if your budget is cut or to develop evidence of the negative effect on the trees to convince decision makers not to cut your budget! It is also set up to be used as a training tool for your employees.

For more information about this program, contact Bob Miller at 715-346-4189 or your District Urban Forestry Coordinator.