

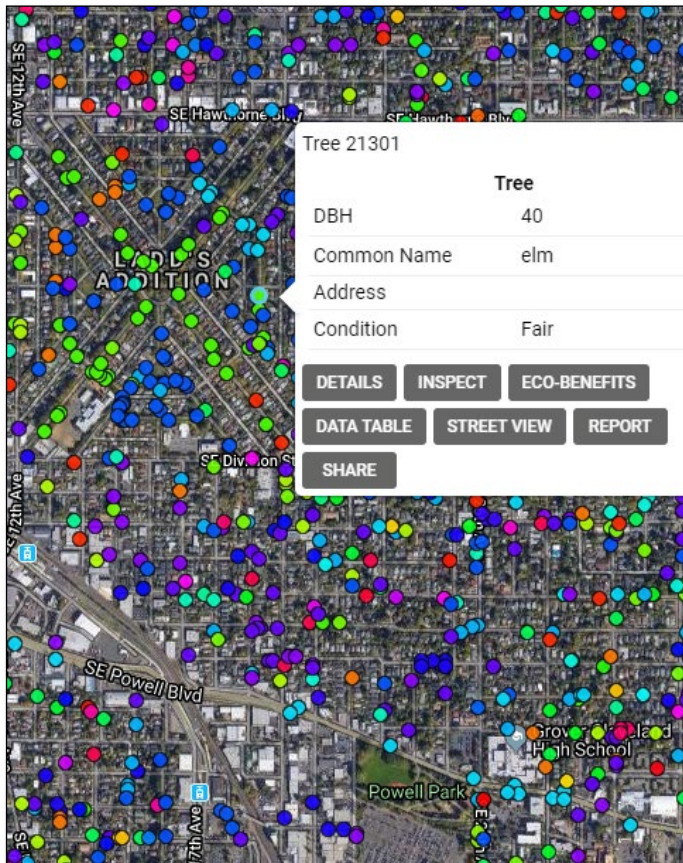


Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

Where Do We Begin?

This Frequently Asked Questions (FAQ) document is designed to help your community or group decide if it wants to map and inventory its public trees using the Oregon TreePlotter™ Inventory (TPI). Oregon TPI was specially designed using TreePlotter™ INVENTORY software developed by PlanIT Geo™. As of 2020, this software is available statewide for free. The Urban & Community Forestry Program (ODF-UCF) is planning on making the application a permanent offering as its use expands in Oregon.

While the actual software is relatively easy and intuitive to learn, your city will benefit from addressing some preliminary questions. For example, what does your community/group want to do with the data? How much training will your city staff need? What are the necessary technical resources required and who manages the data once collected? This document is intended to help your community determine some of these answers.



The first set of questions address WHY to inventory your community’s trees and WHAT the tree mapping platform -- or software -- is, and the types of information your city will be able to collect.

The next section pertains to the technical requirements of the project and what to do if your city already has an inventory.

The following section has answers to questions about who will and can participate in collecting tree data, and how to train staff and volunteer tree data collectors.

Finally, the last section answers questions not answered elsewhere. Also, at the end of the document, there is a link to the PlanIT Geo website with additional resources.

Still have questions not answered in this document?

Contact Brittany Oxford, Urban and Community Assistance Forester Brittany.n.oxford@odf.oregon.gov



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Tell Me More About the Project

What is this tree mapping “platform,” I keep hearing about?

After an extensive review process, funded through a Landscape Scale Restoration grant from the USDA Forest Service, the ODF-UCF program subscribed to the TreePlotter™ INVENTORY platform offered by PlanIT Geo™ and designed Oregon TPI. Oregon is one of only a handful of states with a system like this. This platform, or software, will allow cities, using tablets and smartphones, to inventory and map their trees. Additionally, in the areas of the state that have LiDAR coverage, LiDAR tree data can be combined with Oregon TPI to show the location and size of the trees in a city. Data collected can be as minimal as tree species and DBH or can include more location data (such as tree cutout size) and work order information.

Why should my city inventory and map its trees?

At its heart, a tree inventory is a management tool for your community forest. Unlike an Urban Tree Canopy Assessment, a tree inventory contains information on individual trees – primarily those on public rights of way, such as along streets, or in parks. It will help city tree managers and planners understand and closely track the condition, age distribution, and species diversity of their urban forest. It will help cities prioritize tree work, see where infrastructure is damaged or limiting, identify potential tree-planting sites, and much more. Whether you are managing a specific population of trees or all the street trees in your entire city, it helps to know what you have, where they are, and the factors affecting their health. Oregon TPI will allow users to map and capture tree DBH, species, location, condition, and many other aspects of your city trees so that your tree managers can make management and funding decisions for optimal care of your town’s trees.

Along with the mapping and inventory capabilities of the software, cities can also create reports and tree walks, estimate the cost of dealing with invasive insect outbreaks, quantify the “EcoBenefits” supplied by the inventoried trees, and much more.

Why should my city participate?

Not only will a participating city be able to use its tree inventory data to make urban & community forestry management decisions, but its tree data will also be part of a statewide aggregated tree database that can calculate things such as rainfall interception of the mapped trees and other ecological services; the percentages of the “top 10” species planted; the average condition/age class of mapped trees in Oregon communities, (in all cities, or just a specific city), etc. Additionally, ODF-UCF program staff can view your city’s tree data when asked to assist with its tree management options. Cities are in complete control of their tree data. ODF-UCF staff cannot and will not change any of the data you collect.

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Can nonprofit – or other – groups participate and/or use Oregon TPI?

If your group is committed to inventorying publicly owned trees, such as those on school/university grounds or in a county or state park, has a designated project leader, and is willing to become trained on how best to use this software, then it can access Oregon TPI. In some cases, an MOU with the school district, university, or county or state park managers may be required. If your group wants to inventory a city neighborhood or other city trees, make sure you clear the project with the city/county staff first.

What type of information will we be able to collect?

The image displays two screenshots of the Oregon TreePlotter software interface. The top screenshot shows the 'LOCATION INFORMATION' tab for a tree at 2600 State Street, Salem. The bottom screenshot shows the 'TREE INFORMATION' tab for a tree with Primary ID 310,790, including fields for Scientific Name, Common Name, Genus, Cultivar, Status, Year Planted, Number of Stems, DBH, DBH Range, Tree Height, Height Range, Condition, Percent Dieback, Crown Class, and Clearance Conflicts.

Oregon TPI can be used by people who know relatively little about trees or by trained professionals. Its primary use is to collect tree data about street trees and park trees in the public rights-of-way. The quality of the “output,” as always, relies on the quality (and quantity) of the “input.” Users do not have to fill all the data fields for each tree. *Portions* of the data collection/input screens and an example of *part* of the eco-benefits screen (for one tree) are included here.

For each tree, users will be able to collect, change, and/or update:

- Location information: Land use, address, location on site, growing space size/planting strip width, etc.
- Tree details: botanical name and common name, Genus, cultivar, “status” (e.g., alive, proposed, stump), year planted (if known), DBH actual and range; single stem multi-stem; estimated tree height, condition, percent dieback, crown class, clearance conflicts, other observations, and users can upload photos of the tree.

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The screenshot displays the 'MANAGEMENT NEEDS' section of the Oregon TreePlotter™ software. It features a 'DELETE' button, a 'CLOSE' button, a 'LOAD LAST' button, and an 'INSPECT' button. Below these are tabs for 'LOCATION INFORMATION', 'TREE INFORMATION', 'MANAGEMENT NEEDS', and 'HISTORY'. The 'MANAGEMENT NEEDS' section is divided into 'Primary Maintenance' and 'Secondary Maintenance', each with a 'Clear' button. The 'Primary Maintenance' section includes checkboxes for: Critical Concern (safety), Large Tree (immediate), Large Tree (routine), None, Plant Tree, Prune, Remove Stump, Remove Suckers, Remove Tree, Small Tree (immediate), and Small Tree (routine/train). The 'Secondary Maintenance' section includes checkboxes for: Amend Mulch, Crown Clean, Monitor, None Needed, Other (describe), Pest Problem, Prune- Clear, Prune- Struct, Raise, Reduce, Remove, Remove- For, Remove- Gir, Remove- Han, Restoration, Sidewalk Dan, Thin, and others. A 'Eco-Benefits' window is overlaid on the right, showing a map of a tree location and a summary of benefits: Overall Monetary Benefit (\$167), Stormwater Management (Runoff Prevention (gallons) 6,023, Stormwater Monetary Benefit \$167), and Property Value (Property Value Total \$9.08).

- Management needs – Primary maintenance, secondary maintenance, overhead wires, monitor tree, user data, and Inspection history. One can also view the “eco-benefits” provided by individual trees, a portion of your city’s urban forest, or your whole urban forest. Eco-benefits include stormwater management, property values effects, energy conservation estimates, air quality gains, etc.

- The software also generates reports, schedule tree inspections, and design a tree walk. Users can select color-coded attributes to display on their maps: e.g., all ashes; all trees above xx” DBH; all trees of a specific genus; all trees in an area of your city; or all trees in your city.

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Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

What Technology Do We Need?



To participate, what type of technology do we need?

Tree inventory data is most easily collected in the field on a tablet interface, such as an iPad or Surface, but smartphones can also be utilized. In the office, the cloud-based platform can be accessed through desktop/laptop computers. Tablet, computers, etc. will need to be the property of the participating city/group.

Is Oregon TPI downloaded to a computer/tablet or is it cloud-based?

The platform is cloud-based so it is accessible from just about anywhere. When you are in the field with your tablet or phone, users will have several options to map a tree – you can locate a tree in the field, you can use the platform to map the tree for you, or you can preload the tree placement with LiDAR data, if available in your area. If users notice that the tree is not placed on the map where the actual tree is located, you can drag/tap the point to the appropriate position. If you cannot access data, or have other connection issues in the field, Oregon TPI can be used offline in the field to collect data and then synced online with a desktop/laptop computer.

How can I find out if my city has access to LiDAR data?

If you have a GIS section/division in your city/county, you can ask them. Also, ODF-UCF can help you find and work with this data if necessary.

What if my city already has a tree inventory?

It is not mandatory that a city “adopt” Oregon TPI to manage its tree inventory. Cities that already have tree inventories and are happy with their system have the option to share their tree data with ODF-UCF so that it can be added to the statewide tree database.

How will our existing street tree and park tree inventories interface with Oregon TPI?

A city shares a copy of its tree data as a CSV or shapefile including the X/Y coordinates. This data is crosswalked or matched up with Oregon TPI data and then uploaded. Please contact the ODF-UCF Program manager, Kristin Ramstad, for instructions on how to do this. This will not in any way “corrupt” the tree data you use since you will only need to provide a COPY of your tree data.

Could we import Survey123 data for trees into TreePlotter fields?

Yes. Any data with coordinates (or possibly addresses) can be uploaded. There is an “Uploader” tool that’s very flexible for mapping data fields from one inventory into the statewide inventory database.

Still have questions not answered in this document?

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Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

My city's existing tree inventory and other public works data use ArcGIS software (e.g., "Collector"). Can the tree data collected using Oregon TPI be exported to ArcGIS?

Yes. ODF-GIS or PlanIT Geo technicians can help your city GIS staff do this.

How Will We Get It Done?

First, ask these initial questions: Who in your city staff will "own" this project – become trained to inventory trees, manage the data, and interact with the ODF-UCF staff? You may want to meet with city decision-makers to review this document and answer these questions.

Will the grant cover the cost of our city doing the inventory?

Oregon TPI is currently funded through a grant to the ODF-UCF program by the Forest Service. For the duration of the three-year grant period, cities can access the software at no cost, and we are hoping and expecting to be able to fund this opportunity beyond the life of the grant. The grant does **not** provide or pay for people to conduct tree inventories. The ODF-UCF staff recommends cities engage the community/city staff in the inventory process, as we have found doing so is usually important for the ongoing use of the inventory by city staff and other users. That said, your city can hire a consultant to conduct the inventory, but that expense will not be covered by the ODF-UCF grant. If needed, PlanIT Geo™ offers this [service](#).

This project will cost your city time —time to go through the process of planning and preparing to do an inventory of your city's trees as if your city were itself purchasing inventory software.

What if none of our city staff or volunteers know anything about trees or tree identification?

The skills needed to conduct a basic tree inventory are quite easy to learn. As skills are honed and comfort with using the software improves, users can collect additional tree data. There will be a variety of face-to-face, online, training, and other resources available to cities to help them use the platform and write management plans, *but the onus will be on the cities themselves to commit time and staff to inventory its trees.*

How will our city's staff/volunteers be trained? What type of assistance does ODF-UCF provide?

ODF-UCF offers training sessions, PlanIT Geo webinars, Zoom video-conferencing sessions, and some onsite visits to help cities progress. Staff is available to help with tree ID and troubleshoot any issues with the software. Anything ODF-UCF cannot handle is referred to the support people at PlanIT Geo.

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Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

Can the grant be used to provide internships to OSU Urban Forestry students to help with the inventories?

Yes, it can, however, the interns would be hired by ODF-UCF, not by the cities themselves.

Can our city use volunteers to conduct our inventory?

Yes, you can use trained volunteers (ODF-UCF staff recommend they be at least high-school age) to collect basic tree information. Trained city staff or highly trained adult volunteers (such as Master Gardeners) are best to use to collect tree management information, especially when it relates to tree risk. Many volunteers are interested in helping with tree inventories because they are interested in learning how to identify trees. When training volunteers, FIRST plan for tree ID training for a few sessions and then train them on how to use Oregon TPI.

Does this software have crowd-sourcing capability?

PlanIT Geo offers a crowd-sourcing module, but the Oregon TPI software does **not** include it. Why not? With crowd-sourcing, it can be very difficult to control the QUALITY of the tree data. Without careful and ongoing training and monitoring, the data collected by the public could easily be inaccurate or wrong. Most cities would not have the capacity to monitor publicly sourced data, and ODF-UCF does not either.

Can our city hire a consultant to inventory its trees?

Yes. See the answer above under, "Will the grant cover the cost of our city doing the inventory?" Your city may contract with a consultant to collect tree data at its own expense. ODF-UCF staff believe it is important for cities to engage with the inventory process to help them make their best urban forest management decisions, but we understand that staff and volunteer time can be limited or unavailable to do this work.

Who owns the data that is uploaded into this tree inventory program? What happens to these inventories if the funding is not renewed?

The data can be exported at any time at no cost. If the application is not renewed, all data will be saved/exported and provided to the states and any communities that have used it. That said, ODF-UCF intends to invest in and support this project for the foreseeable future.

Still have questions not answered in this document?

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Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

Other Questions

How is a tree inventory different from an urban tree canopy assessment?

A tree inventory collects individual tree information, tree care needs, etc. An urban tree canopy assessment uses aerial and/or satellite data to determine canopy coverage over a specified land area and bases its analyses on the type and distribution of tree canopy and land use. PlanIT Geo offers canopy assessment tools that are separate from TPI that are available via an individual contract with your city. For a free canopy assessment tool, visit [iTree CANOPY](#).

Are the eco benefits calibrated to local conditions?

Yes. Currently, the eco benefits calculation is based on the [National Tree Benefits Calculator](#), which uses your zip code to determine the Climate Zone of your city when it estimates the eco benefits of your trees. PlanIT Geo is currently revamping this feature to align with the iTree eco benefits algorithm, which will use additional tree location data for more precise estimations.

Can we inventory just a portion of our trees?

Yes. Every city can determine how many trees and which trees they want to inventory. It could be trees in a certain section of town (e.g., a downtown shopping district), or just trees of a certain genus (e.g., just the ash trees so that a city can determine its emerald ash borer risk level). Oregon TPI has a function that will allow users to create “tree walks.” These maps guide targeted audiences to view specific features of trees while they walk. (This can be used for things such as creating a “volkswalk” of a town’s most interesting trees or a walk for city councilors to view tree-sidewalk conflicts).

Which trees should we plan to inventory?

The basic guideline for which trees to inventory are the ones that:

- your city/school/group has jurisdiction over -- so you can make management decisions about them, or
- are in relatively well-defined groups or areas, such as along streets in a neighborhood or downtown designation, but not in stands or densely growing groups, or
- you have a reason to be concerned about safety risks or susceptibility to invasive insects, such as emerald ash borer (EAB).

If you do not have a clear picture of what trees to inventory in your city, consider contacting the ODF-UCF staff to discuss.

Still have questions not answered in this document?

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Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

What exactly will we need to “report” to the ODF Urban Forestry Program?

For grant reporting purposes, ODF UCF needs to show how much time participating groups and communities are spending using Oregon TPI. This helps us “match” the grant dollars that were awarded for this project. ODF-UCF will ask cities/groups to simply keep basic track of how many people are using the software and the amount of time they are spending with it – either on a monthly or quarterly basis.

Will Oregon TPI help my city develop management plans?

Yes. ODF-UCF staff can help your city develop a simple urban forest management plan to share with city leaders.

Can I view Oregon TPI on my computer?

Yes! Please contact the ODF-UCF program manager directly for login info.

Does PlanIT Geo™ and TreePlotter™ Inventory have other “add-on” attributes that my city can buy, or additional software for tree canopy analysis?

Yes. There are other “bells and whistles” your city may be interested in obtaining from PlanIT Geo. These will need to be negotiated between your city and PlanIT Geo and will need to be paid for by your city.

What happens after the grant funding/grant period has finished?

The TreePlotter™ Inventory software is provided as a “Service as Subscription” through PlanIT Geo and is priced according to the number of trees in the database. Presuming there has been a strong engagement with the software during the three-year grant period, the ODF-UCF program is committed to keeping the subscription for PlanIT Geo’s service running. This may take the form of cost-sharing the software with larger cities, or if affordable, covering the cost through its program budget. Additionally, cities will have the option of working with PlanIT Geo to purchase and customize additional software.

A worst-case scenario would be that PlanIT Geo no longer supports the ODF-UCF project after the grant funding runs out. If this were to occur your city will still be able to keep its tree data collected using Oregon TPI. You can then use it as is, “cross-walk” it into another application/software or work directly with PlanIT Geo to support your city via a subscription with them. ODF-UCF will also keep the tree data in the statewide tree database.

Still have questions not answered in this document?

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Urban and Community Forestry Assistance Program Oregon TreePlotter™ Inventory FAQ

Can any of the forms be updated or tailored to our city's needs? Can additional trees be added to the "picklist?"

All changes to the forms and tree picklist will be undertaken solely by the ODF-UCF staff. The forms may be tailored slightly to your city's needs, but whatever is added to the forms will be available to all OR TPI users. Once a field is added to the form, it is very difficult to remove, so changes to the form would need to be discussed with ODF-UCF staff first to find a "workaround" if possible. Ideas for additional picklist trees should be emailed to ODF-UCF staff.

If our city is collecting minimal data on each tree, can we alter the tree collection form to view just the fields we want to collect (to minimize confusion)?

Not currently.

Where can I find more information?

For an excellent set of FAQs about the TreePlotter™ INVENTORY Software, visit the TreePlotter FAQ page on the PlanIT Geo website. Here you will find a software overview, a technology overview, data management, and functionality information, pricing structure (for future reference), and information on platform security and privacy. The TreePlotter website is at <https://support.treeplotter.com/article-categories/faqs/>.

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Urban and Community Forestry Assistance Program Tree Plotter Inventory (TPI) 2022

City of

City Tree Plotter Inventory TEAM Information

★ The City TPI Project Administrator should complete the entire form. Please return a copy to ODF. This table can be completed on a computer and will expand onto additional pages, if needed.

Category	Name & Title	Email and Phone	Anything we should know?*
Project Administrator (City staff person who will oversee TPI project in your city. Must agree to User Agreement.)			
Inventory/Data Collection Project Leader (If different from above. This is a person who will become familiar with the TPI software, and may be the person designated by the City to collect data, work with data collectors, train staff, etc)			
IT/Data Support person			
(Optional) Other resource person #1** Please describe role in last column			
(Optional) Other resource person #2** Please describe role in last column			
(Optional) Department Head (If different from above. This is a person who should be "in the loop" about TPI communications from ODF)			

* Additional information about this person, e.g. availability, best times to contact, area(s) of expertise/experience, etc.

** Other resource people are those who support/will be involved with the project on a limited/specific basis and who will be "kept in the loop." (E.g. local Master Gardeners involved with data collecting, interested teachers, professional data collectors (hired by city), etc.)



Urban and Community Forestry Assistance Program Tree Plotter Inventory (TPI) 2022

City of

City Needs and Readiness Form

- _____ (Initial) I have read and agree to the User Agreement at the end of this document.
- _____ (Initial) The City agrees to track the number of hours the TPI software is used for federal grant reporting purposes.
- _____ (Initial) I have carefully read the [FAQ document](#) regarding Oregon's Statewide TPI Project. I have viewed at least one INTRO webinar on the TPI, either on the [PlanIT Geo website](#), or on the [ODF website](#).
- _____ (Initial) I have viewed at least one additional webinar on additional TPI features, such as generating reports, viewing environmental benefits, exporting data, etc. on the PlanIT Geo website or on the ODF website.

Please indicate your city's strengths and/or need for assistance:

1. My city wants to get started on using the TPI...

- As soon as possible In a couple of months, after we get organized Possibly next year

At the appropriate time, whom should we contact to get started with this?

- Project Admin Project Leader City IT Other

2. The City already has a tree inventory and wants to upload its tree data into the statewide system.

- I don't know No Maybe Yes

If yes or maybe, whom should we contact to get started with this?

- Project Admin Project Leader City IT Other

3. The City has the technical capacity to get started on the inventory (see FAQ for technical information). E.g., the City has a laptop/desktop computer, tablet devices, and/or smart phones

- I don't know No Working on it Yes

If the City does not have or is working on its technical capacity, please let us know what is being obtained or who ODF should contact to discuss

- Project Admin Project Leader City IT Other

4. Who will be collecting tree inventory data?

- City Staff Volunteers City Tree Committee Other Not sure yet

(continued...)



Urban and Community Forestry Assistance Program Tree Plotter Inventory (TPI) 2022

City of

5. Does City STAFF/volunteer cadre currently have the appropriate level of tree identification and tree care knowledge to get started on the inventory?

- Yes (we are ready to go) No (we need help)

If you would like assistance, what type of help do you need?

- Tree Identification
 Gathering of individual tree information (e.g., size, condition, needs, etc)
 Other (Explain):

Who should we contact to follow-up with training needs? (If necessary, please add this person to the TEAM table.)

- Project Admin Project Leader City IT Other

★ If the City is planning to hire professional tree inventory data collectors (at city expense), please add the company or group to the TEAM table, along with contact information.

❖ Other thoughts, comments, concerns related to your city's readiness and ability to get started?



Urban and Community Forestry Assistance Program Tree Plotter Inventory (TPI) 2022

City of

User Agreement

1. In this User Agreement, the Oregon Department of Forestry Urban and Community Assistance Program will be referred to as “ODF.” The City of _____, will be referred to as “the City.”
2. To assist in ODF grant federal grant reporting, the City agrees to track the number of people and hours spent on using the Tree Plotter Inventory in the City. The City will collect this information quarterly, and submit this data annually during the first week of NOVEMBER.
3. The City understands that this software is being offered in good faith by ODF. There may be times in this unprecedented statewide effort when the City needs to work together with ODF and PlanIT Geo to figure out answers to any challenges the City encounters.
4. The City understands that ODF and PlanIT Geo staff will not change the City’s tree uploaded data without a written (email) authorization from the City.
5. The tree data entered into the statewide TPI system will be viewable by ODF staff, and to a less detailed degree by the public. The statewide tree data may be used to generate “state of Oregon’s urban forest”-type reports for ODF to promote urban forestry, warn of invasive insects, and related reports. Permission to identify specific cities in reports will be obtained prior to publication of any report.
6. The City understands that if it is interested in obtaining its own “add ons” to the TPI software, in addition to ODF’s TPI software, it will be at city expense and via discussion and negotiation directly with PlanIT Geo. The City understands that it may create its own subscription contract with PlanIT Geo at any time.
7. The City understands the TPI project is being funded through federal grant funding through 2022/23, making this software free to the City. ODF plans to maintain the project after the grant cycle finishes. Currently, ODF has a Service as Subscription contract with PlanIT Geo to provide support and hosting of the platform until August 2022, with the expectation of continuing this agreement with additional federal funding. Since the future is never certain, ODF is investigating and cultivating future non-federal funding options for this platform, as well.
8. The tree data collected by the City belongs to the City, regardless of the future of ODF’s Subscription agreement with PlanIT Geo.
9. The City understands that this software may not be sold/transferred to/utilized by other users for projects outside of the City’s tree inventory without written permission of ODF.
10. The City understands that it can control its own tree data visible to its residents and will do so prudently so as not to generate undue distrust or conflict among its residents.