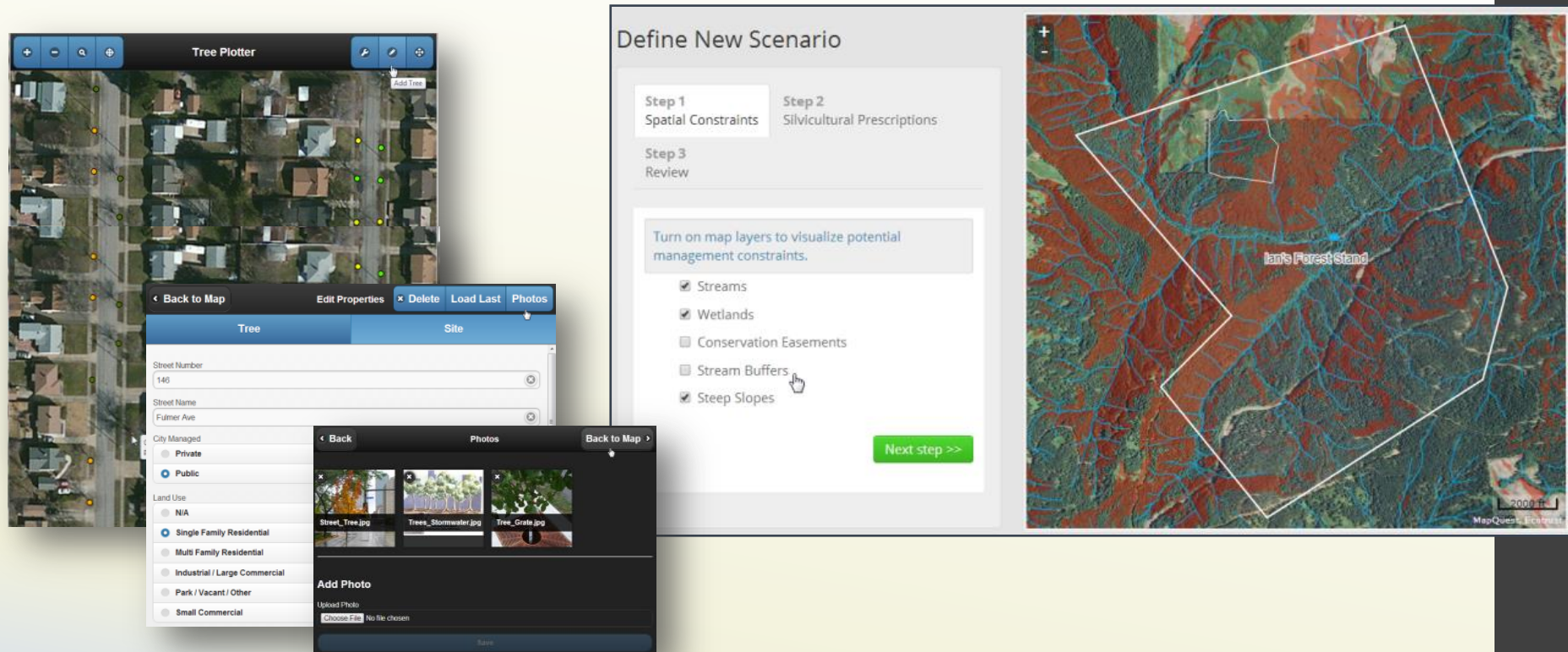


COMPARING COMMUNITY FORESTRY TECHNOLOGIES FOR CITIZEN SCIENCE & CROWD-SOURCING

CUFC11 | OCTOBER 2014



Presented by:

Ian Hanou, plan-it GEO LLC



AGENDA

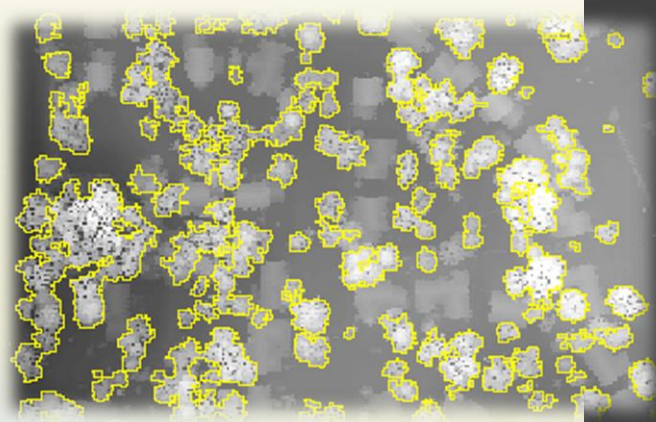
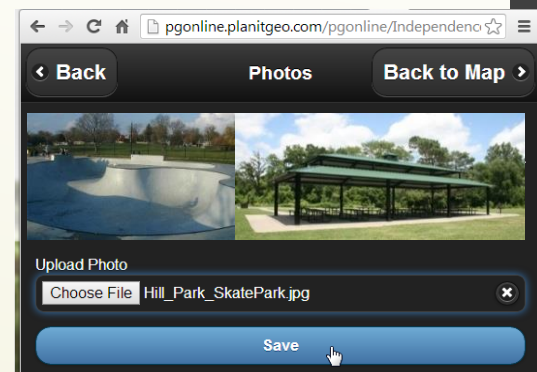
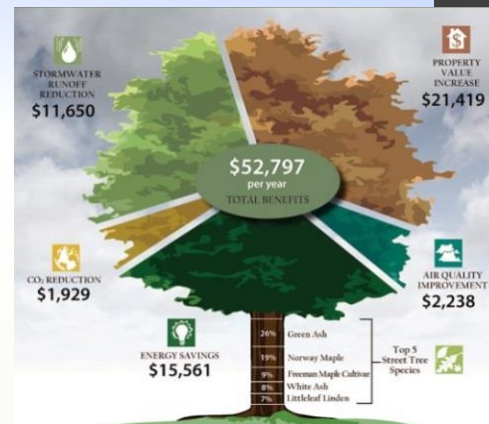
- 🌳 **Plan-It Geo:** about us
- 🌳 **Intro:** key terms & what new tools/apps mean to you
- 🌳 **Tree Tools:** apps, inventory, work orders, outreach
- 🌳 **Canopy Tools:** landscape-scale tools/apps
- 🌳 **Recap:** discussion, Q&A



OUR SERVICES & MARKETS

- GIS Analysis and Remote Sensing
- Urban Tree Canopy (UTC) Assessment
- Software Application Development
 - *Urban Forest Cloud*
 - 20+ software clients | 80+ UF projects
- Tree Inventory | Risk Assessment
- Ecosystem Services Analysis
- Training, Workshops, Spatial Surveys

Credit: WI DNR



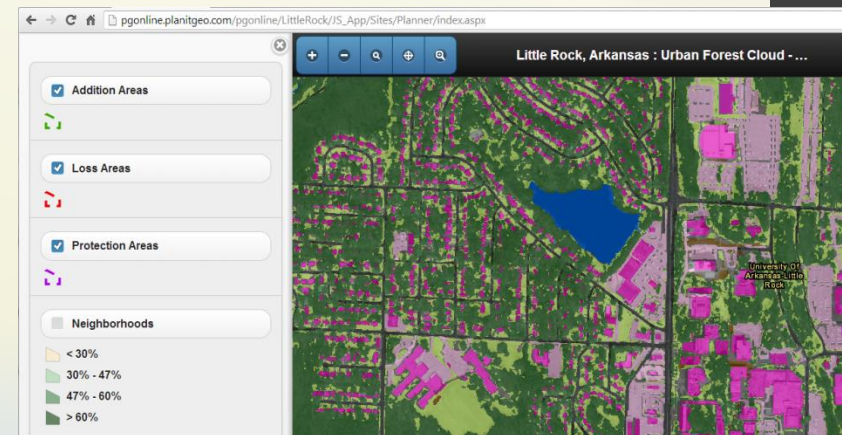
GOALS FOR TODAY ...

- Introduce technologies offering efficiencies to enhance urban and community forest management & outreach
- Gain an understanding of the possibilities of crowdsourcing and citizen-science tools
- Discuss uses of these tools/apps



USES OF TECHNOLOGY APPLICATIONS

- Collect data, monitor, site/plan review
 - Mobile, desktop, real-time, dashboards
 - By staff, consultants, and/or volunteers
- Education, Engagement and Awareness
- Scenarios and Visualization
 - Ecosystem services
 - Management/planning
 - Landscape / site-specific scale
- Spatial surveys
 - Stakeholder input
- And many more ...



WHAT DOES “THE CLOUD” MEAN FOR U&CF?

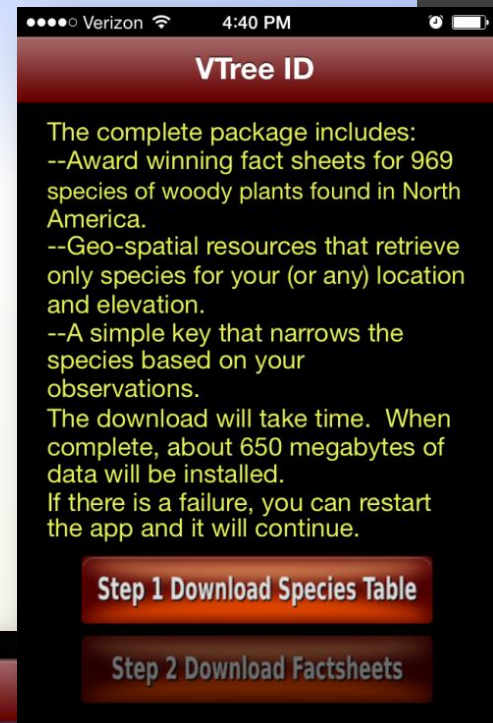
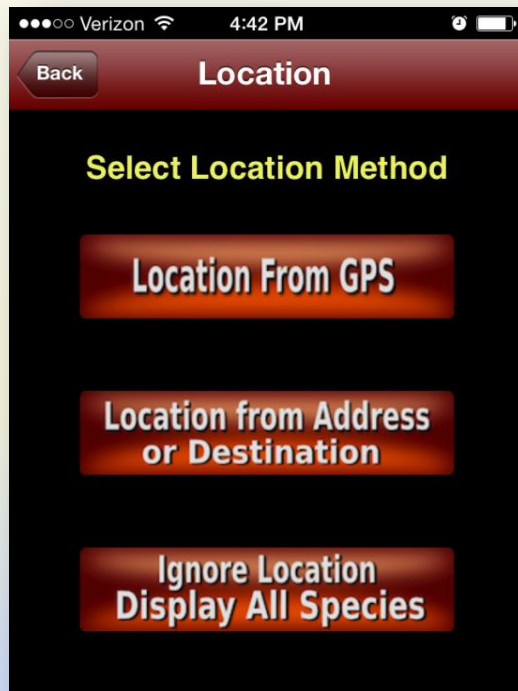
- 🌳 **Accessibility:** your tree data anytime, anywhere (when online)
- 🌳 **Data Inputs:** from multiple sources (depts. or citizens)
- 🌳 **Tell and Share:** your story more readily cost-effectively
- 🌳 **“Hosted Solutions”:** no other GIS/GPS soft-/hardware needed
- 🌳 **Just Think:** *of the possibilities ...*
 - 🌳 Inter-departmental “feeds” for plan review and permitting
 - 🌳 Service request “feeds” from the public
 - 🌳 Real-time quality control checks and Level of Service dashboard
 - 🌳 Budget preparation support: tell (show!) your story, and your woes
 - 🌳 Stakeholder input, volunteerism, and citizen science
 - 🌳 Customer service: show residents what else is on your plate

vTREE (VIRGINIA TECH)

<http://dendro.cnre.vt.edu/dendrology/main.htm>

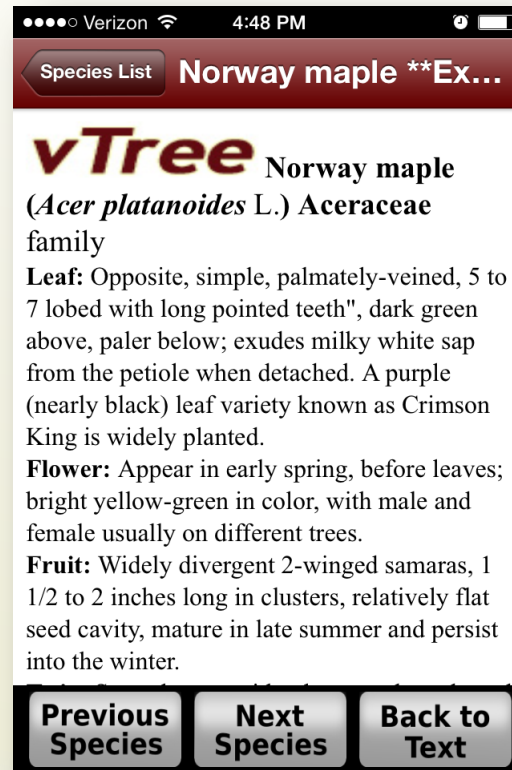
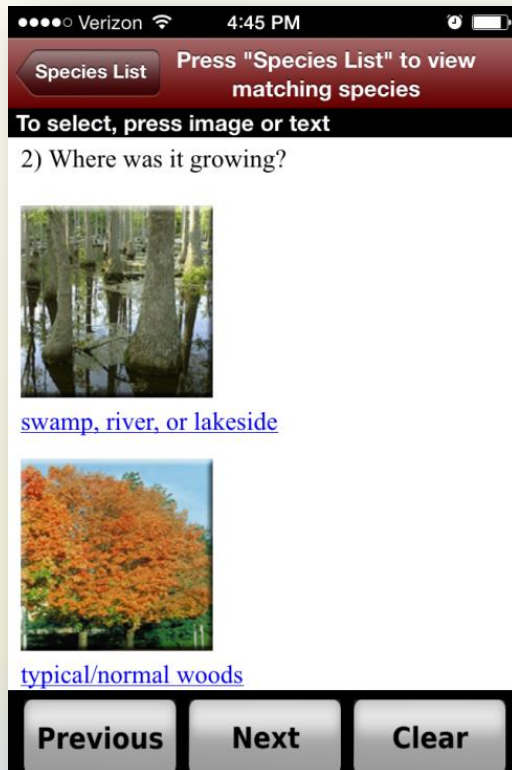
Contact: Dr. Eric Wiseman, pwiseman@vt.edu

- 🌳 Free native app (iOS and Android)
- 🌳 Simple workflow
- 🌳 Identify and learn about nearly 1,000 tree species



vTREE (VIRGINIA TECH)

- 🌳 Great search function and field key
- 🌳 Tons of photos, phenology information and more



ONE MILLION TREES.CA: MISSISSAUGA, ONTARIO

onemilliontreesmississauga

ABOUT COUNT MY TREES PLANTING PROGRAMS PLANTING TIPS EVENTS CONTACT US

top5planters

LARGE ORGANIZATION

City of Mississauga	52796
Credit Valley Conservation	17844
Toronto and Region Conservation Authority	15239
Evergreen	3454
Scouts Canada	1600

SMALL ORGANIZATION

Credit River Anglers Association	10324
Art of Living	2355
Ecosource	1190
Sierra Club	1120
Peel Environmental Youth Alliance	610

SCHOOL

St. Marcellinus Catholic Secondary School	978
Olive Grove School	692
Mississauga Secondary School	500
Port Credit Secondary School	364
Turner Fenton Secondary School	300

BUSINESS

UPS	1930
Bosch	1130
Air Canada	1130
Mary Kay	1130
Ontario Natural Food Co-op	1130

INDIVIDUALS

Sean Stuckless	67
Barbara Maj	28
Michael & Patricia Page	25
Muzna Khan	18
Robin Daddar	14



110,640
trees
planted

MISSISSAUGA

Help the City of Mississauga
plant one million trees by 2032

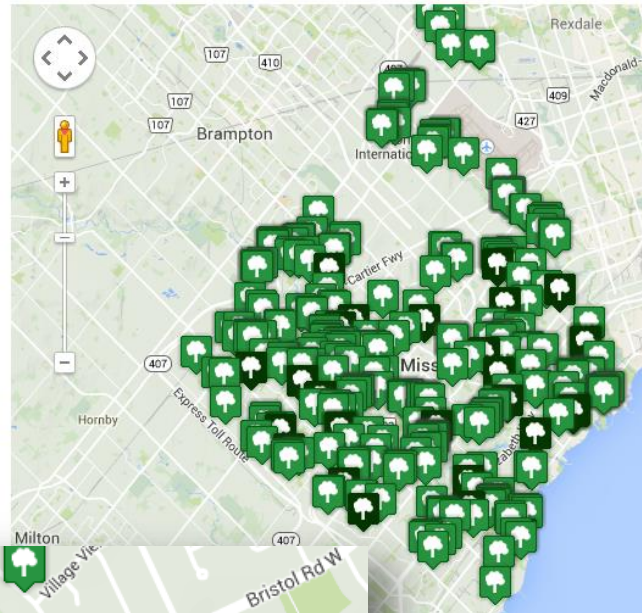
top5planters

onemilliontreesmississauga ABOUT COUNT MY TREES PLANTING PROGRAMS PLANTING TIPS EVENTS CONTACT US

ONE MILLION TREES.CA: MISSISSAUGA, ONTARIO

onthemap

Please Note: This map does not reflect all planting locations.



TREE PLANTING FORM

If you are a landscaping company, please ensure that the homeowner or landowner do not plan to count these trees towards our one million goal.

Your Name

Your Email

Have you planted on behalf of an organization? ☒ No ☐ Yes

Number of trees planted

Tree Species

Tree Size

Date of planting

Nearest Address:



Upload Photos

Max size for photo upload is 3M

Submit

☐ Please do not show my planting location on the map.

ONE MILLION TREES.CA: MISSISSAUGA, ONTARIO

<http://www.yourleaf.org/estimator>



Welcome to the Ontario Residential Tree Benefits Estimator

This online tool estimates the energy savings and other environmental benefits provided by your existing tree. It can also help you to decide where to plant new trees around your home.

Roll your cursor over words that appear in blue for more information.

[Click to Begin](#)



My American Beech with an approximate DBH of 48 cm growing near (6 to 10 m) to and west of my house in Brampton.

My Tree's Environmental Benefits

	kWh Saved	Value of Electricity Savings (\$)	Sequestered CO ₂ (kg)	Avoided CO ₂ (kg)	Stormwater Mitigation (l)	Air Pollution Removed (kg)
Over Expected Life (75 yrs)	9,283	1,068	6,385	1,327	771,765	112
Over First 40 Years of Life	3,254	374	2,500	465	199,961	39
Over First 10 Years of Life	292	34	210	42	11,731	4
Over Current Life	3,111	358	2,399	445	189,366	38
This Year	142	16	101	20	10,595	2

This tree will reduce the instantaneous demand for electricity this summer by 0.052 kW.

At its current age, this tree has a replacement value of \$6,722. The tree's replacement value at 40 years of age is estimated at \$6,722.

Step 1

Are you estimating tree benefits for an existing tree or exploring options for a new tree?

Step 2

Select a species. For an existing tree enter diameter or years following planting.

Step 3

Does your house use electricity for winter heating? (e.g., electric baseboard heaters)

Step 4

What is your closest city? What side of your house is your tree on? Distance tree is from house.

Go



Step 4

What is your closest city? What side of your house is your tree on? Distance tree is from house.

Go

YEG TREE MAP: EDMONTON, ALBERTA



Map and explore tree data



Add and edit trees online



Track stewardship activities



Add photos and leave comments



View eco benefits calculated using i-Tree Streets

YegTreeMap interface showing a map of Edmonton, Alberta, with tree data. The map displays numerous green tree icons representing individual trees. A pop-up window for a 'Green ash' tree is visible, showing nearby addresses and options to view details or edit. The right sidebar displays tree details for a 'Green ash' (Fraxinus pennsylvanica), including trunk diameter (30.0 cm), tree height, and calculated benefits: energy conserved (403.0 kwh/year saved \$236), stormwater filtered (1,314.9 gal/year saved \$7), air quality improved (0.9 lbs/year saved \$1), carbon dioxide removed (430.8 lbs/year saved \$3), and carbon dioxide stored to date (1,029.7 lbs saved \$7).

267,373 trees, 267,390 planting sites [Export Search Results](#)

Search by Species: Common or Scientific Name

Search by Location: Address, City, State

Search

Advanced Reset

+ Add a Tree

Tree Details

Full Details Quick Edit

Green ash
Fraxinus pennsylvanica

Trunk Diameter
30.0 cm

Tree Height

TREE BENEFITS

- Energy conserved
403.0 kwh/year saved \$236
- Stormwater filtered
1,314.9 gal/year saved \$7
- Air quality improved
0.9 lbs/year saved \$1
- Carbon dioxide removed
430.8 lbs/year saved \$3
- Carbon dioxide stored to date
1,029.7 lbs saved \$7

YEG TREE MAP: EDMONTON, ALBERTA



Add Photo

Latest Update

CityofEdmonton set species to Green ash [Fraxinus pennsylvanica] on Dec. 21, 2013

75% Complete

- Add a photo

Recent Edits

CityofEdmonton

Dec. 21, 2013 (9 months, 1 week ago)

- set species to Green ash [Fraxinus pennsylvanica]
- created a tree
- made the tree editable
- set Owner to City of Edmonton Parks
- set diameter to 30.0 centimeters

Green ash

Edit

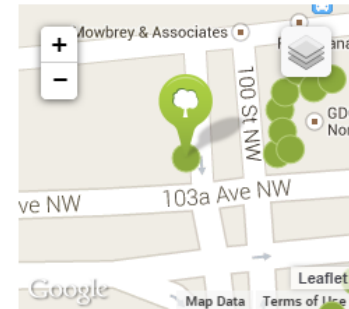
Delete

Tree Information

Tree Number	106101
Common Name	Green ash
Scientific Name	<i>Fraxinus pennsylvanica</i>
Trunk Diameter	30.0 cm
Tree Height	
Canopy Height	
Date Planted	
Date Removed	
Assessment	
Storm Damage	
Local Project	
Pests and Diseases	
Owner	City of Edmonton Parks
Steward	City of Edmonton

Tree Stewardship

No entries yet!



i-TREE UPDATES: WHAT'S NEW?

Who are i-Tree tools for?

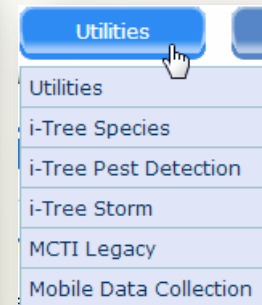
- 🌳 Citizens, managers, decision-makers, landscape architects, etc.

<http://www.itreetools.org/>

What's New?

- 🌳 i-Tree Design
- 🌳 i-Tree Canopy
- 🌳 New video learning and promotional marketing materials

http://www.itreetools.org/news/whats_new.php



**** Not intended to be a “comprehensive” update***

i-TREE UPDATES: I-DESIGN



i-Design now allows the user to:

- Enter multiple trees around a building
- Forecast cumulative, lifetime (not just annual) benefits
- Visualize tree growth
- Export summary reports

i-Tree Design v6.0

Get started with these easy steps:

1. Draw Structures
2. Place Trees
3. Estimate Benefits

Describe your tree:

- Tree species: **Fir, Douglas**
- Tree diameter: **19** Inches
- or circumference: **59.7**
- Tree condition: **Good**
- Tree exposure to sunlight: **Full sun**

Tree benefit zones:

- The colored zones surrounding the structure, which appear as you describe your tree, illustrate the value of energy savings provided in each zone.
- Hover over each zone to benefit information display map.

To place a tree:

- Drag this icon to the map where you would like the tree.
- Repeat to place additional trees.
- Hover over any tree you place to display its benefits.

Model the tree(s) future crown over time:

Model Crown Growth

3. Estimate Benefits

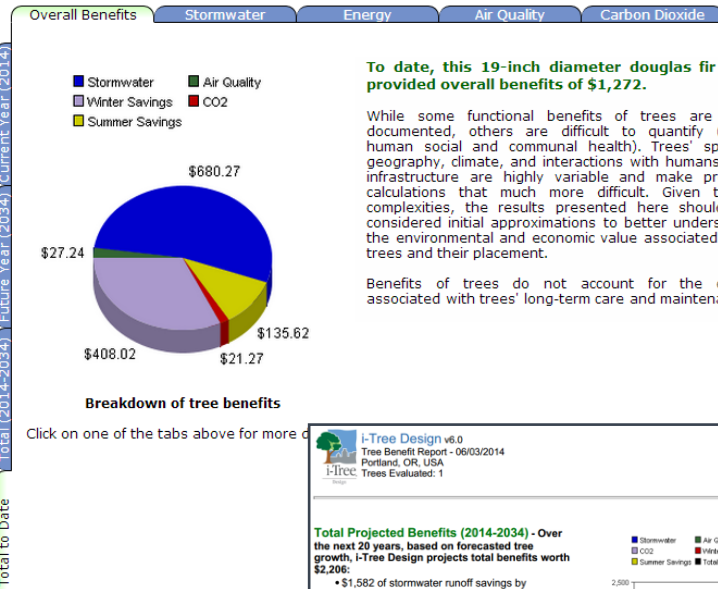
You can calculate the benefits of your tree(s) for current and future years, as well as the total to date.

- Enter the number of years (2–99) below to track tree growth and benefits.

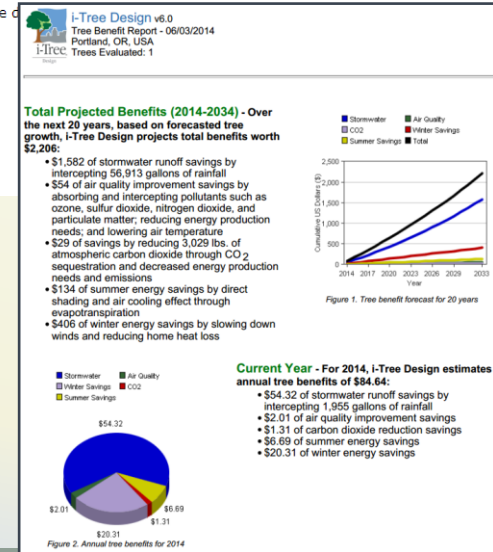
Years: **20**

Get your results!

Calculate »



Douglas fir
Pseudotsuga menziesii



i-TREE UPDATES: i-CANOPY



i-Canopy now includes ecosystem benefits

Cover Class	Description	Abbr.	Points	% Cover
Tree	Tree, non-shrub	T	22	22.0 ±4.14
Non-Tree	All other surfaces	NT	78	78.0 ±4.14



Tree Benefit Estimates

Abbr.	Benefit Description	Value	±SE	Amount	±SE
CO	Carbon Monoxide removed annually	\$2.19	±0.41	3.30 lb	±0.62
NO2	Nitrogen Dioxide removed annually	\$13.50	±2.54	66.26 lb	±12.48
O3	Ozone removed annually	\$221.37	±41.68	198.18 lb	±37.32
PM2.5	Particulate Matter less than 2.5 microns removed annually	\$85.50	±16.10	4.85 lb	±0.91
SO2	Sulfur Dioxide removed annually	\$0.88	±0.17	9.45 lb	±1.78
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	\$246.69	±46.45	78.99 lb	±14.87
CO2seq	Carbon Dioxide sequestered annually in trees	\$358.96	±67.59	18.54 T	±3.49
CO2stor	Carbon Dioxide stored in trees (Note: this benefit is not an annual rate)	\$10,888.33	±2,050.20	562.32 T	±105.88

i-Tree Canopy Annual Tree Benefit Estimates based on these values in lbs/acre/yr and \$/T/yr: CO 0.872 @ \$1,333.50 | NO2 17.526 @ \$408.89 | O3 52.423 @ \$2,241.87 | PM2.5 1.282 @ \$35,407.17 | SO2 2.500 @ \$187.19 | PM10* 20.894 @ \$6,268.44 | CO2seq 9,807.385 @ \$19.43 | CO2stor is a total biomass amount of 297,489.961 @ \$19.43

Note: Standard errors of removal amounts and benefits were calculated based on standard errors of sampled and classified points.

i-TREE VIDEO LEARNING AND MKTG MATERIALS



Video Learning

- <http://www.itreetools.org/resources/videos.php>
- Varying lengths covering Eco, Streets, Design, Canopy, Hydro, Species, and mobile data collection.



Promotional marketing materials

- <http://www.itreetools.org/resources/why.php>
- Factsheets and templates
- Guides and manuals

i-Tree 2014 Promotional Video Trailers

These video trailers were developed as promotional pieces to creatively introduce prospective audiences to the 2014 i-Tree software suite of tools.

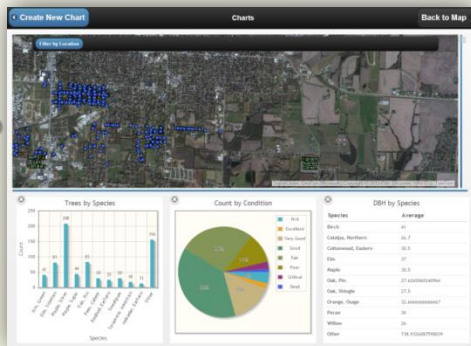
- [i-Tree long video trailer](#) (.mp4) 4 min.
- [i-Tree short video trailer](#) (.mp4) 1 min.



PLAN-IT GEO APPLICATIONS OVERVIEW

- Web-browser based for tablets or desktop use
- No GIS or GPS software needed; complete hosted solution
- Real-time, multi-user data entry on-the-cloud
- Subscription-based apps & a platform for custom projects

Tree Plotter®

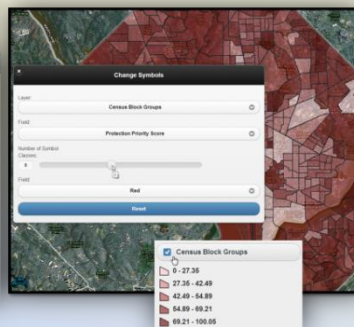


Work Order Management®

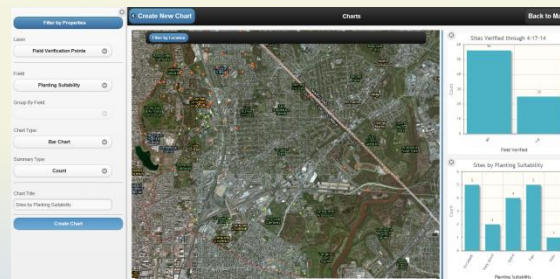
Tree Dashboard



Canopy Planner®



Open Spatial Surveys



Park Amenities®



URBAN FOREST CLOUD: TREE PLOTTER APP

Englewood, CO : Ur...

Inventory

Map view showing tree locations with an 'Add Tree' button.

Tree Inventory

TYPE

- Street Tree
- Park Tree
- Memorial Tree
- Other Public Property Tree
- Private Property Tree
- Proposed Tree Planting

Land Use

- N/A
- Single Family Residential
- Multi Family Residential
- Industrial / Large Commercial
- Park / Vacant / Other
- Small Commercial

Tree Properties

Street Number: 146

Street Name: Fulmer Ave

City Managed: Private

Public

Photos: Back, Add Photo, Back to Map

Reports

Charts

Recommended Maintenance

Sidewalk Damage

Condition

Predominant Species Table

Species	Count	%
Ash, Autumn Purple	34	2.9%
Lilac, Ivory Silk Japanese Tree	129	11.1%
Maple, Cleveland Norway	35	3%
Maple, Crimson King	147	12.7%
Maple, Hodge	80	6.9%
Maple, October Glory Red	36	3.1%
Maple, Red Sunset Red	132	11.4%
Maple, Rocky Mountain Glow	39	3.4%
Maple, Royal Red Norway	56	4.8%
Maple, Schlessinger Red	42	3.6%
Other	418	35.3%

Legend

Labels

Change Basemap

Filter by Properties

Filter by Location

Charts

Measure

Draw Graphics

Print Map

Work Order Management

Crowd-sourcing

Getting Started

Welcome to the Texas Tree Tracker!

This map shows tree plantings in the Dallas / Ft Worth Metroplex. Any person or organization can track the trees they plant. It's fast, easy and it helps spread the word about how we can all do our part to create a greener Texas!

The Texas Tree Tracker is brought to you by the Texas Trees Foundation and TXU Energy

TEXAS TREES FOUNDATION

TXU energy

Go to the next page for instructions on using the Tree Tracker, or close this box and start mapping if you've done this before.

Using the Tree Tracker

Dashboard

Michigan : Tree Plotter Dashboard

Welcome the Michigan DNR Tree Dashboard!

Trees by the Numbers

Trees in Inventory	Vacant Planting Sites	City Managed Trees	Trees With EAB Signs
22,651	9,549	1,879	8

Trees by Condition

Dead or Dying: Poor 3,336

Trees by Species

American elm 159

Trees by Primary Maint. Need

Remove 1,162

Trees by DBH

Trees by Condition

Dead or Dying 12%, Poor 23%, Fair 62%, Good 3%

Trees by Growspace

Cutback 1%, Front Yard 17%, Medium 17%, N/A 17%, Other Maintained Location 40%, Other Unmaintained Location 1%, Planting Strip 1%

Trees by Land Use

N/A 89%, Park / Vacant / Other 1%, Single Family Residential 1%, Small Commercial 1%

PLOTTER "LITE" (FREE VERSION)

The interface displays a map of the United States with numerous yellow dots representing tree inventory locations. The map is titled "Plotter LITE : Free Tree Inventory".

Left Panel:

- Free Tree Inventory** (checked)
- TYPE**
 - Street Tree
 - Park Tree
 - Memorial Tree
 - Other Public Property Tree
 - Private Property Tree
 - Proposed Tree Planting
- Legend**
- Change Basemap**
- Filter by Properties**
- Filter by Location**
- Share**
- Measure**
- Draw Graphics**
- Print Map**
- Export Features**

Print Window:

- Map Title: My Tree Map
- Page Orientation: Landscape
- Scale Bar Units: Miles
- Print**

Export Window:

- Choose Layer to Export: Free Tree Inventory
- CSV **Shapefile**
- Select Features to Export**

Right Panel:

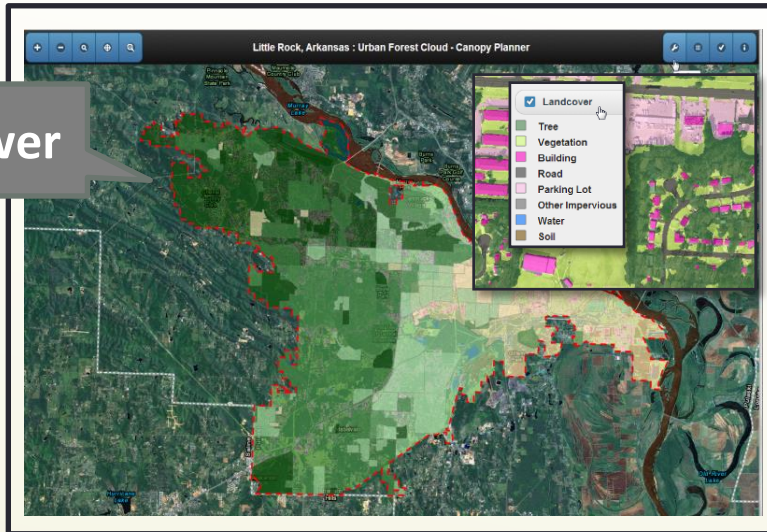
- Add Tree**
- Draw Text**
- Draw Point**
- Draw Polyline**
- Draw Freehand Polyline**
- Draw Polygon**
- Draw Freehand Polygon**
- Draw Rectangle**
- Draw Circle**
- Delete Graphics**
- Start Drawing**

Inset Map:

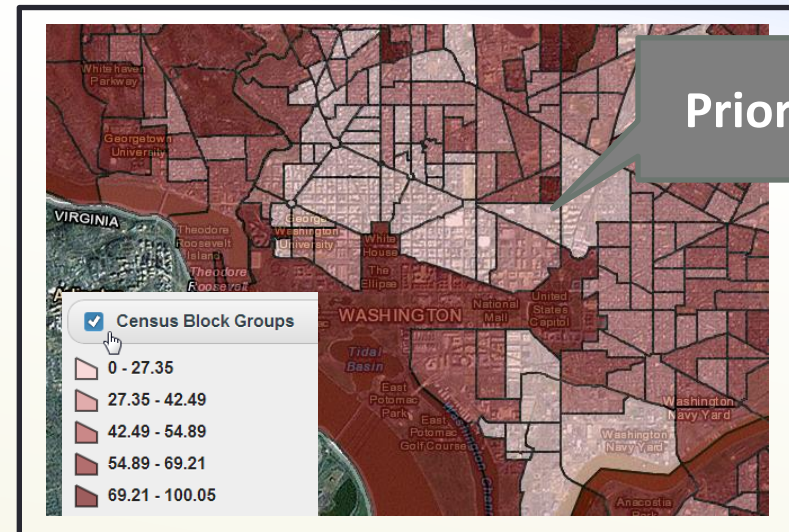
Quaking aspen
Boxelder
Available Planting Site
Available Planting Site
Red pine
American mountain ash
White spruce
White spruce
Available Planting Site

CANOPY PLANNER: LANDSCAPE-SCALE ANALYSIS

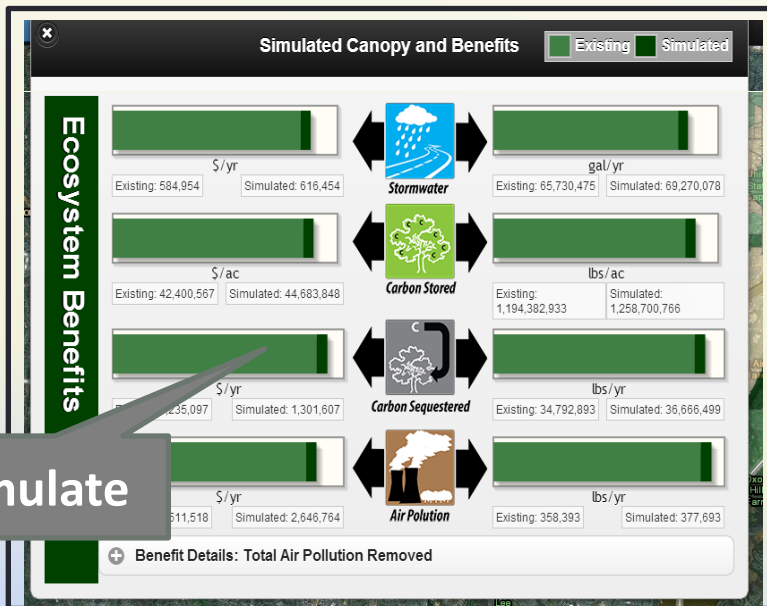
Viewer



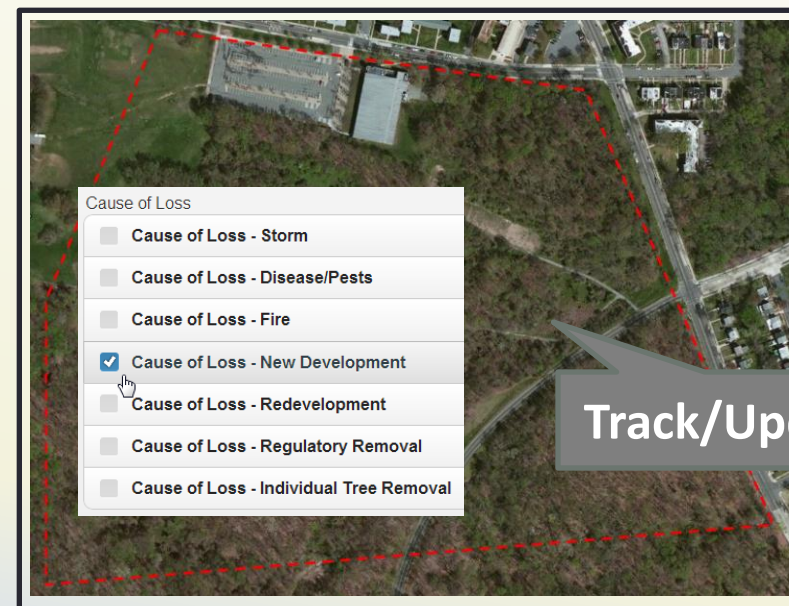
Prioritize



Simulate



Track/Update



ONLINE SERVICE REQUEST & WORK ORDERS

Inspect Service Request

Create Work Order

Tree ID: 109

Service Request ID: 4

Work Order Type:

Work Order Subtype:

Priority:

Due Date: mm/dd/yyyy

Estimated Cost:

Actual Cost:

Update Status Information

Service Request Queue

Show	10	Rows			
1804 S Prospect Ave	Sedalia	Tree Health Issue	Low	Request Received	Bob Robson
1820 S Prospect Ave	Sedalia	Tree Safety Issue	Extreme	Further Monitoring	Bob Robson
1860 S Prospect Ave	Sedalia	Tree Obstacle	Medium	On Hold	Tree Docs
9147 W 77th Pl	Arvada	80005	N/A	Ready for inspection	ACME CO Joe Acme
1860 S Prospect Ave	Sedalia	65001		Ready for inspection	ACME CO Joe Acme

Showing 1 to 5 of 5 entries

Update Status/Assign Inspection

A companion "app" to Tree Plotter

General
Public

Enter a
Service
Request

Managers /
Inspectors

Contractors

Conduct work,
update data in
the app

Review, enter,
track, edit,
and audit
work



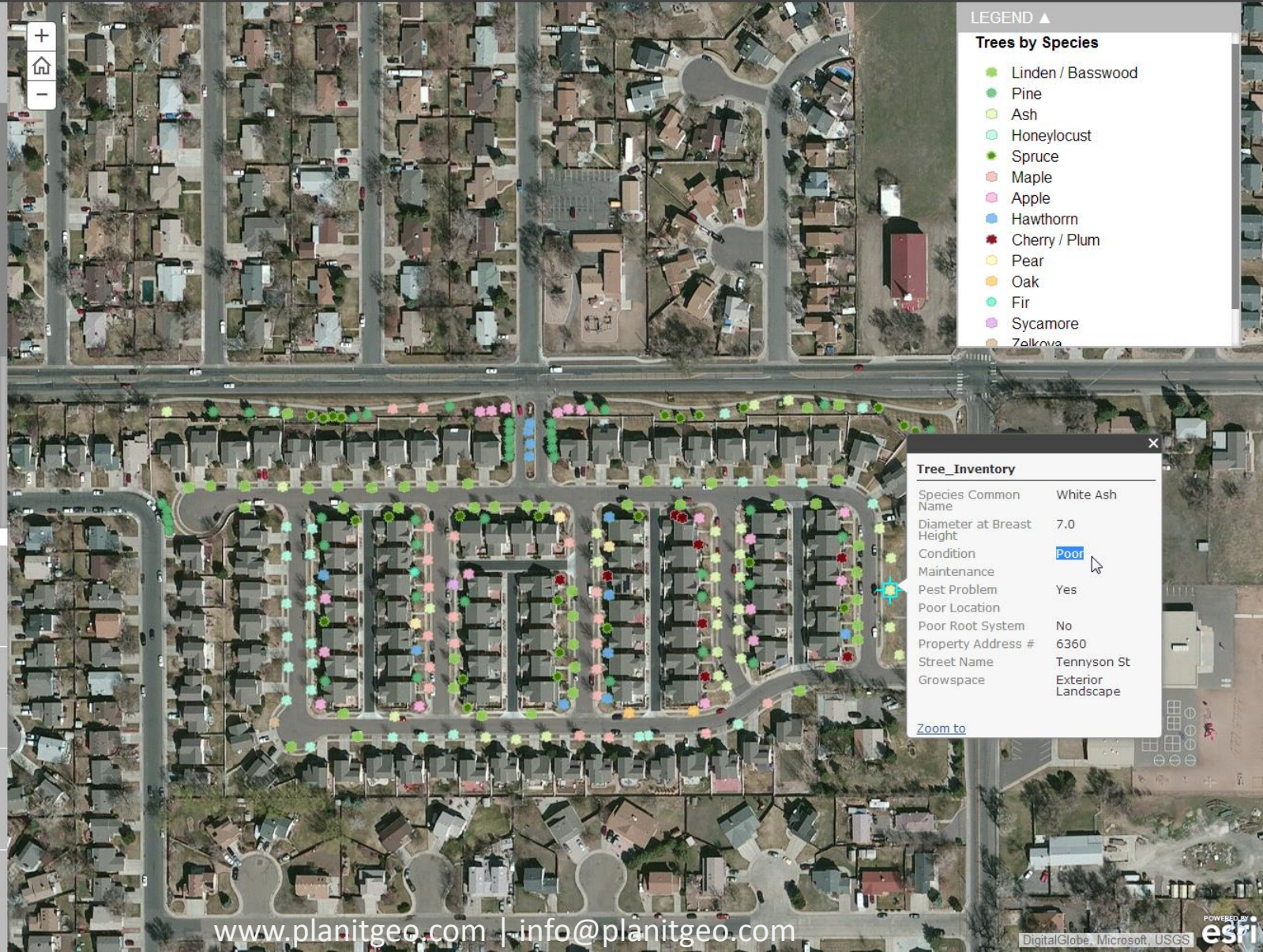
TREE PLOTTER: "EAB STORY MAP"



An Inventory of Trees in the Tennyson Park HOA

Explore the community's trees and learn about emerald ash borer (EAB) in this story map.

<http://pgmobile.planitgeo.com/TennysonPark/EAB/>

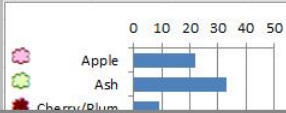


1

Trees by Species

Welcome to an interactive "story map" of trees in the Tennyson Park HOA in Arvada, Colorado. Explore the inventory data by clicking a tree to view information such as species, diameter at breast height (DBH), condition, maintenance needs and observations.

A total of 250 trees were inventoried in street planters, front yards (for interior homes), and community greenspaces. The most common trees in Tennyson Park are linden and pine followed by ash, honey locust, spruce, crabapple, and maple.



2

Ash Trees

3

Ash Trees by Condition

4

Maintenance Needs of Trees

5

Recommendations Report

LEGEND ▲

Trees by Species

- Linden / Basswood
- Pine
- Ash
- Honeylocust
- Spruce
- Maple
- Apple
- Hawthorn
- Cherry / Plum
- Pear
- Oak
- Fir
- Sycamore
- Zelkova

Tree Inventory

Species Common Name	White Ash
Diameter at Breast Height	7.0
Condition	Poor
Maintenance	
Pest Problem	Yes
Poor Location	
Poor Root System	No
Property Address #	6360
Street Name	Tennyson St
Growspace	Exterior Landscape

[Zoom to](#)

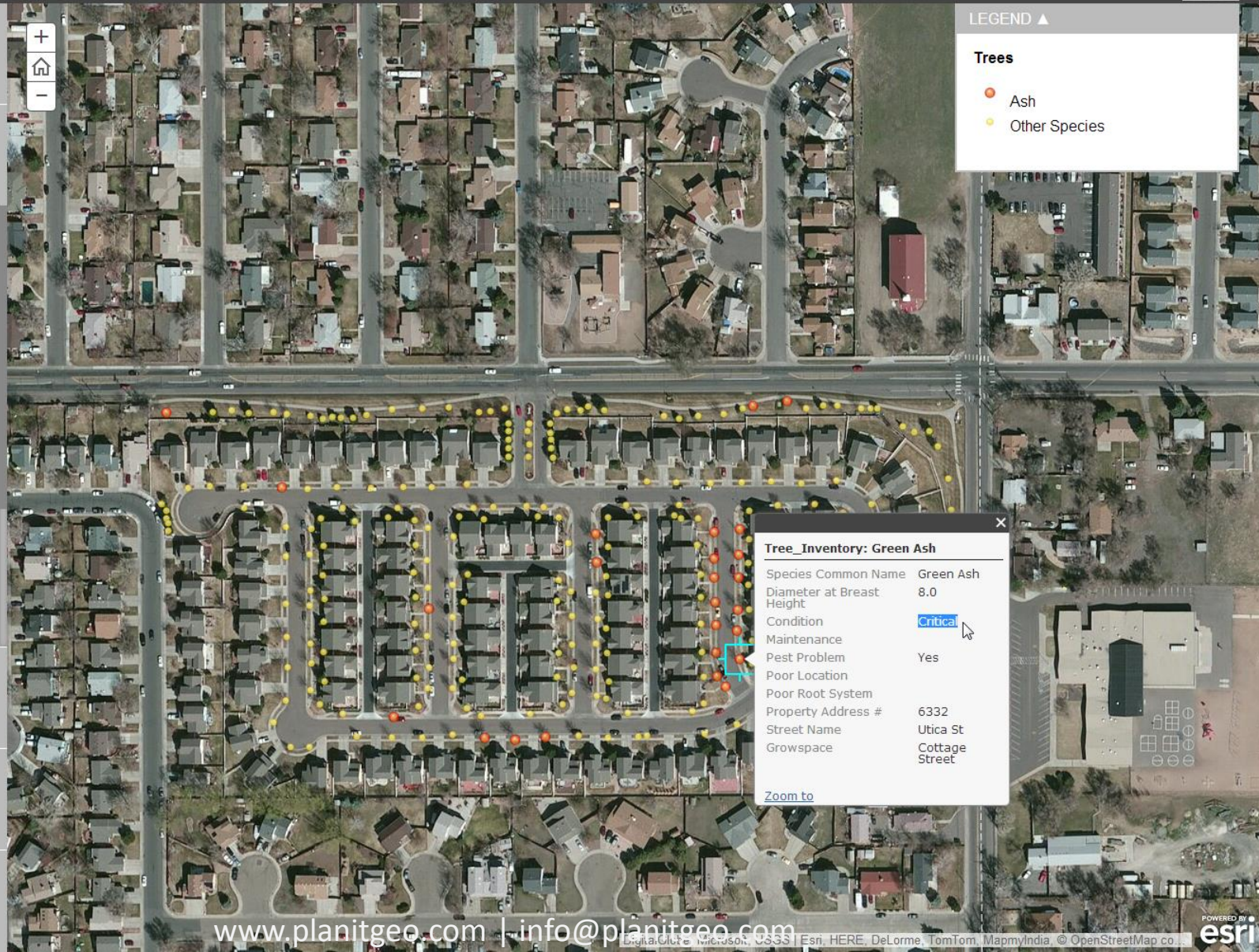
TREE PLOTTER: "EAB STORY MAP"



An Inventory of Trees in the Tennyson Park HOA

Explore the community's trees and learn about emerald ash borer (EAB) in this story map.

<http://pgmobile.planitgeo.com/TennysonPark/EAB/>



1 Trees by Species

2 Ash Trees

Emerald Ash Borer (EAB) is an exotic beetle that has decimated populations of ash trees in urban areas across the eastern United States, killing tens of millions of ash trees in the past 12 years or more.

In many urban areas including Arvada, Colorado, ash trees make up a significant percentage of the urban forest. The Colorado Department of Agriculture estimates that 15% of all trees in Colorado urban areas are ash, with an estimated 1.45 million ash trees in Denver metro alone.

In September 2013, it was announced that EAB had been found in Boulder, Colorado. An early stage of planning to manage this infestation involves mapping and inventorying ash trees, the presence or extent of EAB infestation, and the quality of the

3 Ash Trees by Condition

4 Maintenance Needs of Trees

5 Recommendations Report

TREE PLOTTER: "EAB STORY MAP"



An Inventory of Trees in the Tennyson Park HOA

Explore the community's trees and learn about emerald ash borer (EAB) in this story map.

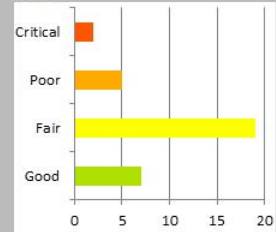
<http://pgmobile.planitgeo.com/TennysonPark/EAB/>

1 Trees by Species

2 Ash Trees

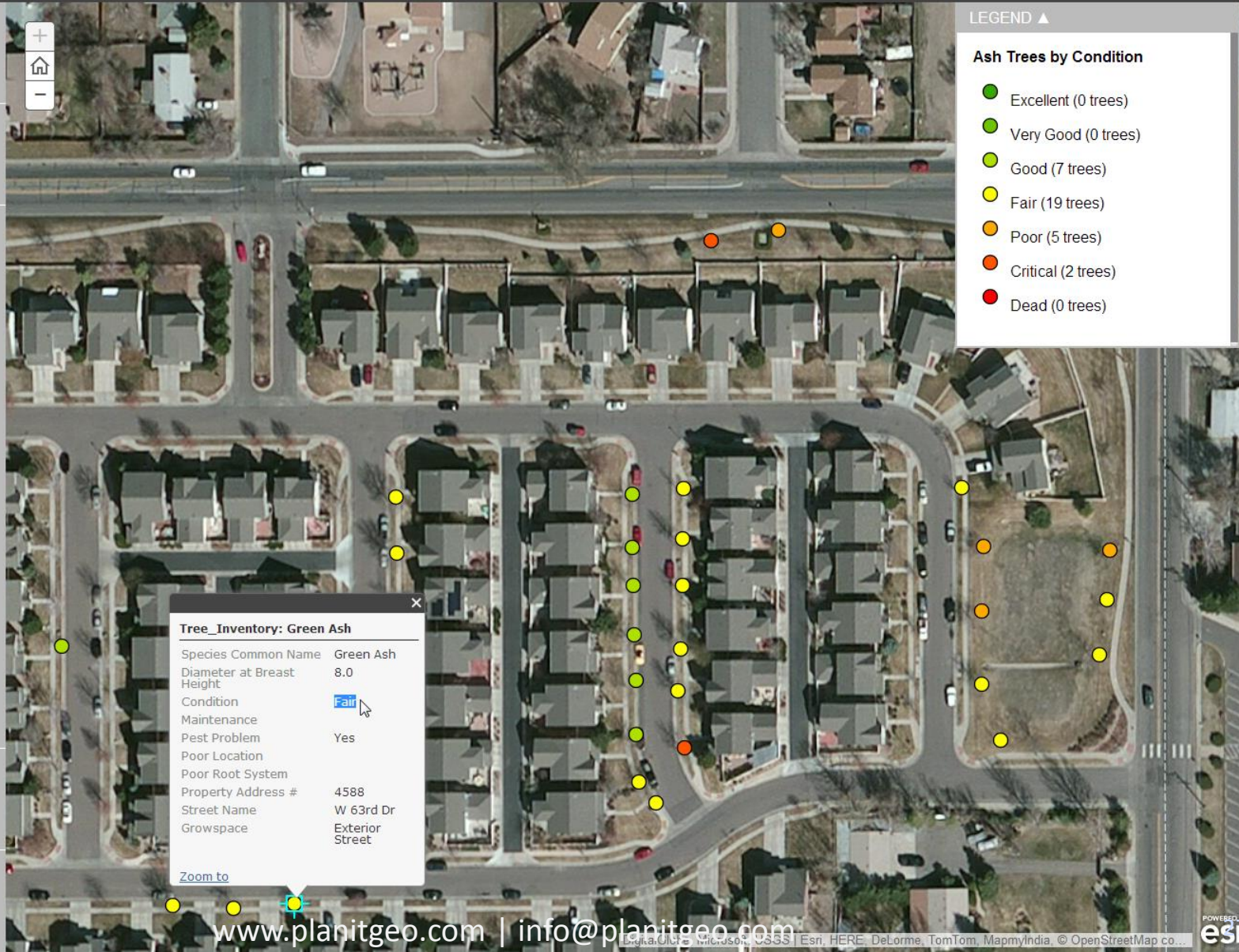
3 Ash Trees by Condition

The majority of ash trees in Tennyson Park are in Fair condition (19 out of 33). No signs of EAB were detected in Tennyson Park, though many ash trees are infested with the less destructive lilac ash borer beetle.



4 Maintenance Needs of Trees

5 Recommendations Report



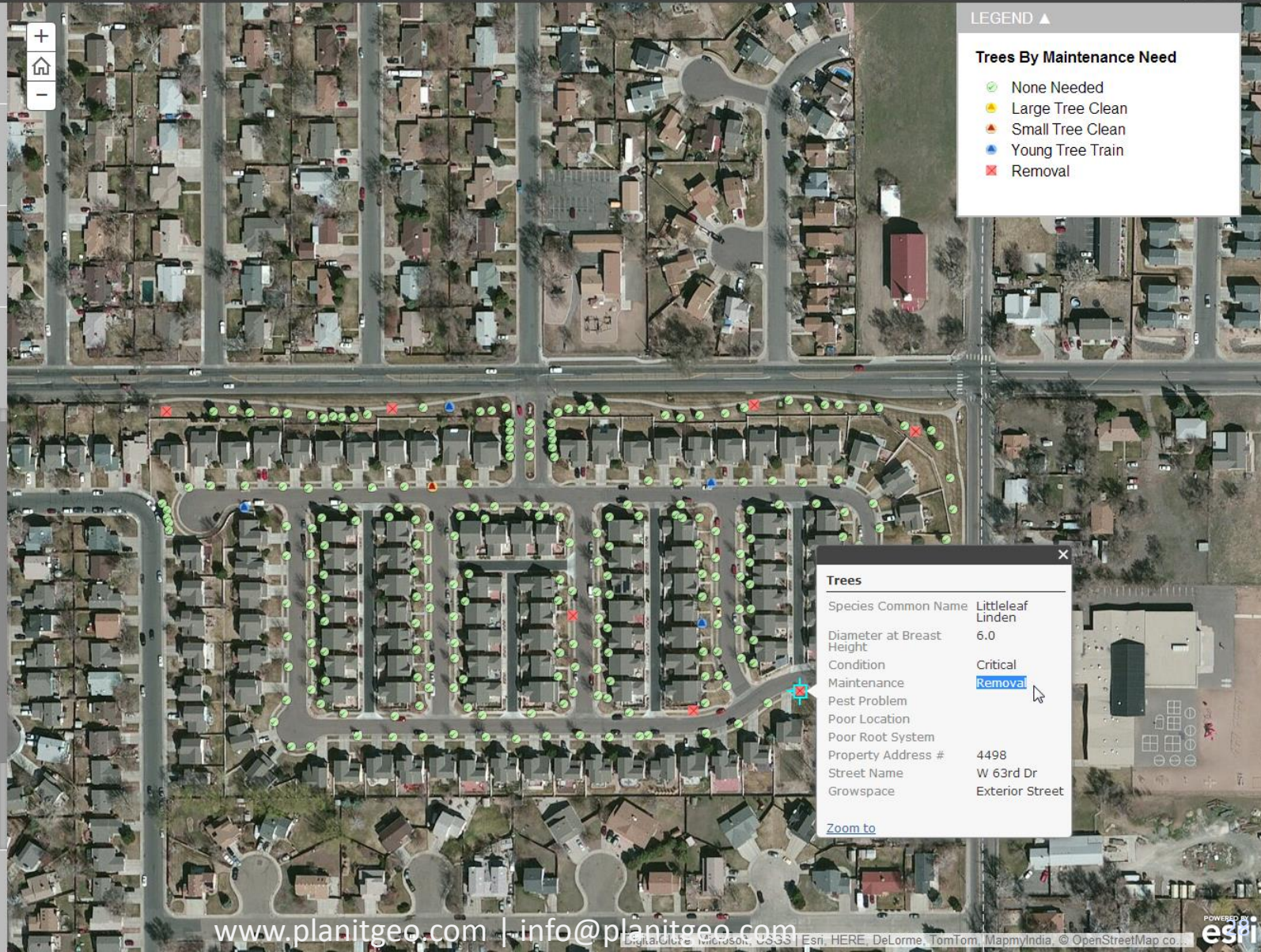
TREE PLOTTER: "EAB STORY MAP"



An Inventory of Trees in the Tennyson Park HOA

Explore the community's trees and learn about emerald ash borer (EAB) in this story map

<http://pgmobile.planitgeo.com/TennysonPark/EAB/>



1 Trees by Species

2 Ash Trees

3 Ash Trees by Condition

4 Maintenance Needs of Trees

The trees in Tennyson Park are maintained regularly by the HOA property management's landscaping contractor. The map shown here illustrates that 13 trees (out of 250) are in need of maintenance. The seven (7) recommended removals are due to mechanical damage which the trees cannot heal itself naturally or other related issues.

While only 13 trees need immediate maintenance, the tree population is fairly young (Tennyson Park was developed in 2001) therefore many common types of maintenance such as large pruning are not yet required. The inventory should be conducted routinely by a certified arborist to ensure proper maintenance is applied as needed for safe and healthy trees, especially where improper planting practices have

5 Recommendations Report

TREE PLOTTER: "EAB STORY MAP"



An Inventory of Trees in the Tennyson Park HOA

Explore the community's trees and learn about emerald ash borer (EAB) in this story map.

<http://pgmobile.planitgeo.com/TennysonPark/EAB/>

1 Trees by Species

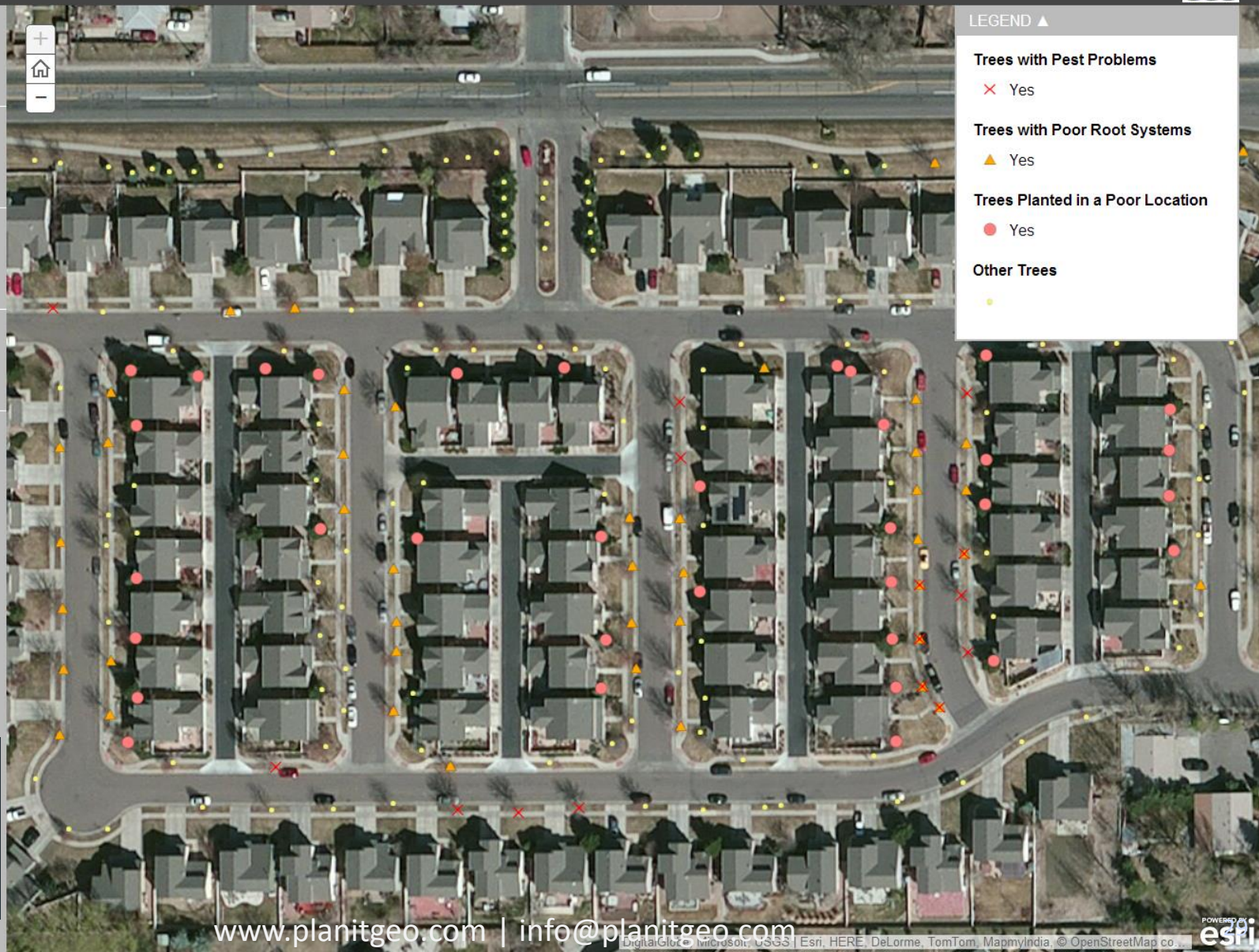
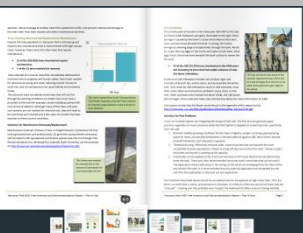
2 Ash Trees

3 Ash Trees by Condition

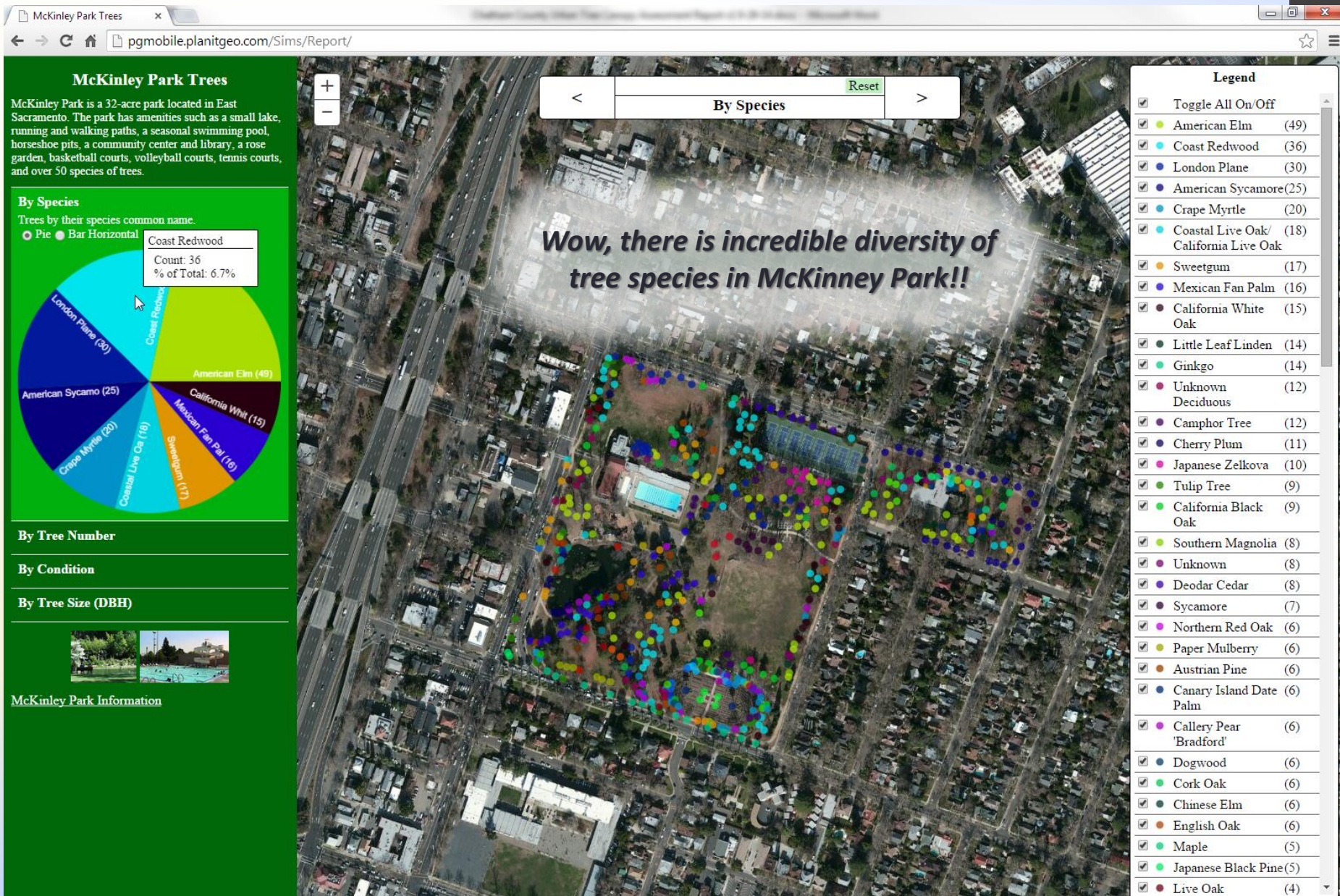
4 Maintenance Needs of Trees

5 Recommendations Report

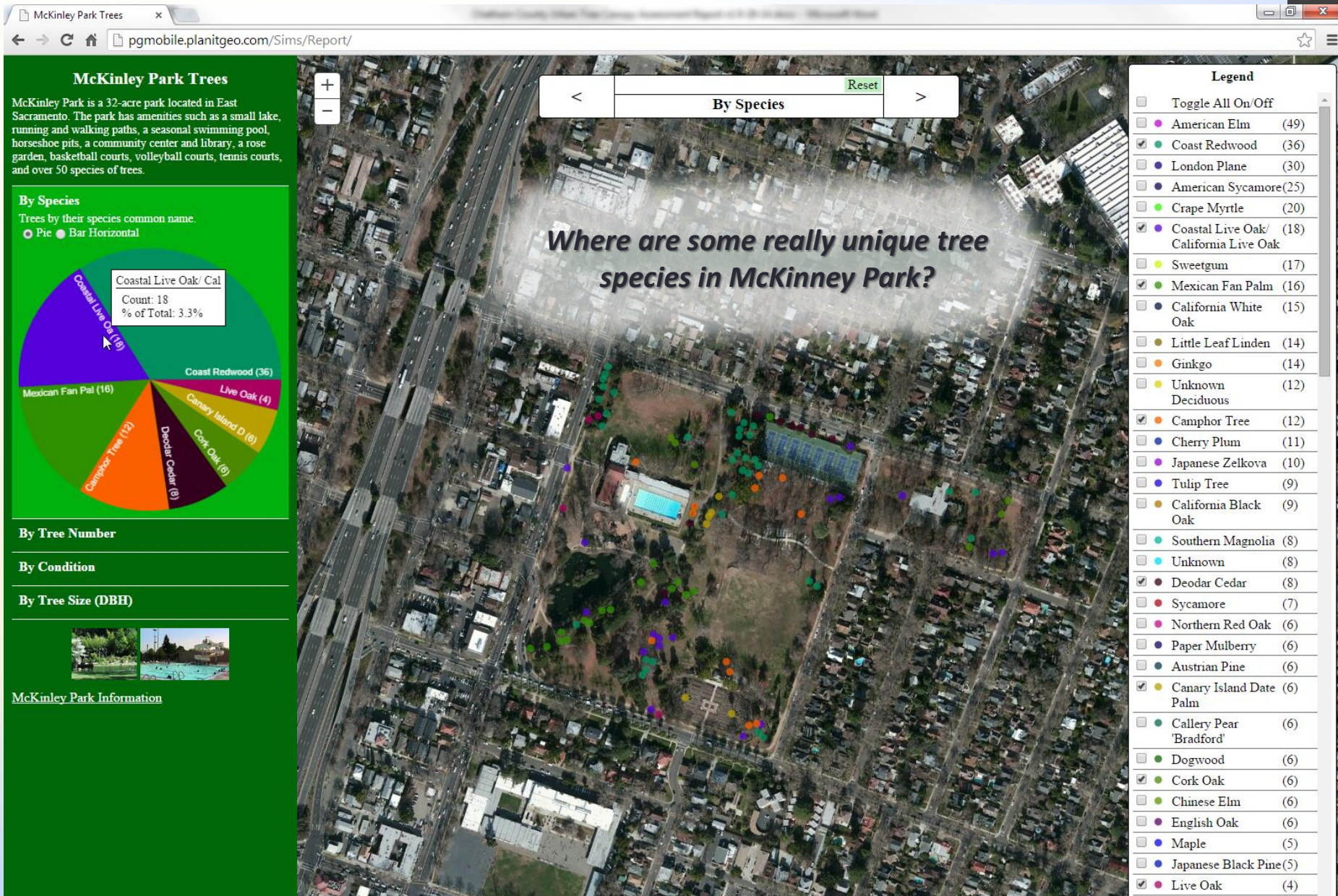
Plan-It Geo provided a draft recommendations report summarizing the methods and findings of the inventory followed by general recommendations. The legend in this map shows trees by some of common observations made - poor root system, poor placement, and pest problems. The report can be found [HERE](#).



PARK TREE INVENTORY: WEB-BASED REPORTING

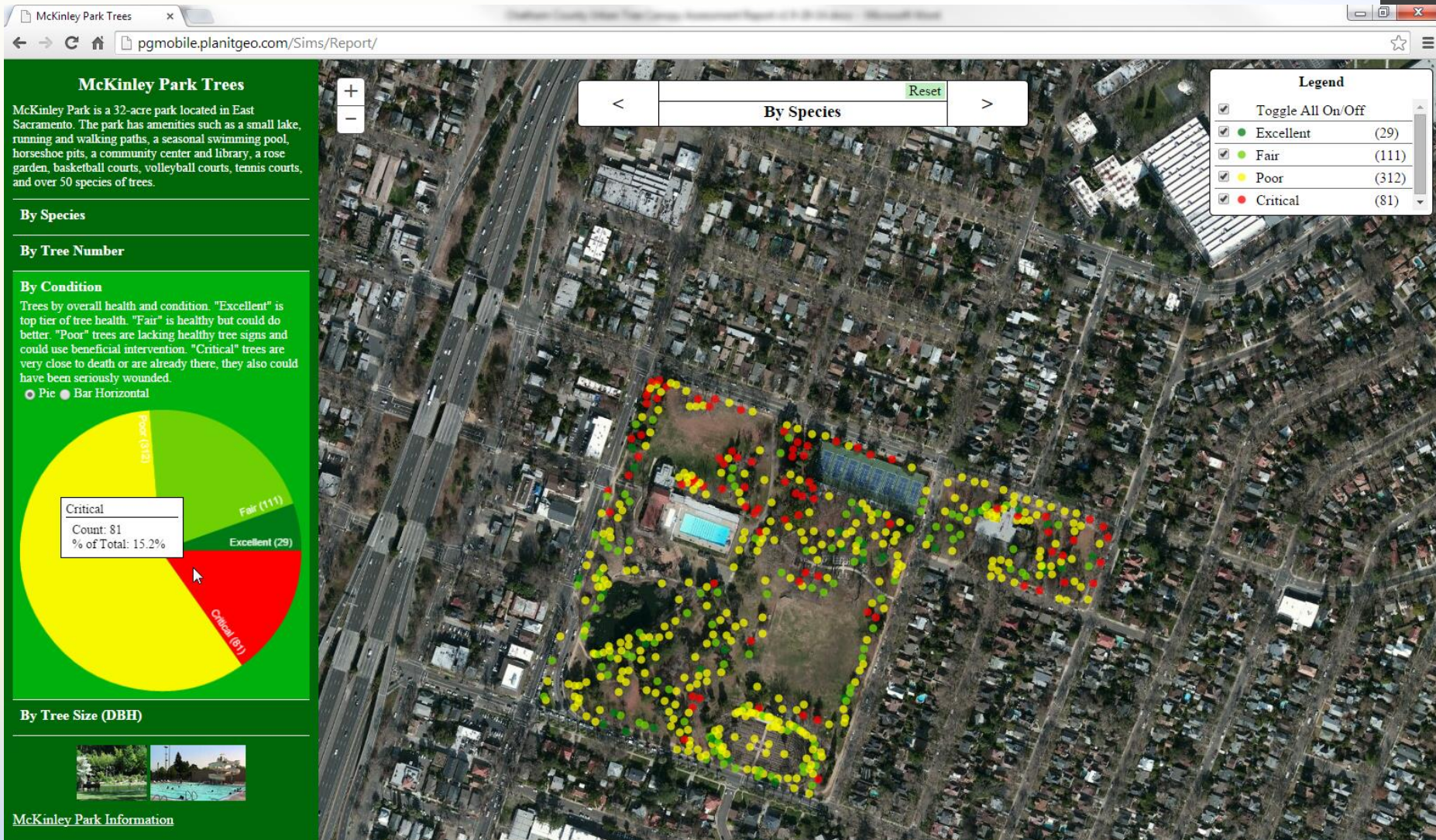


PARK TREE INVENTORY: WEB-BASED REPORTING



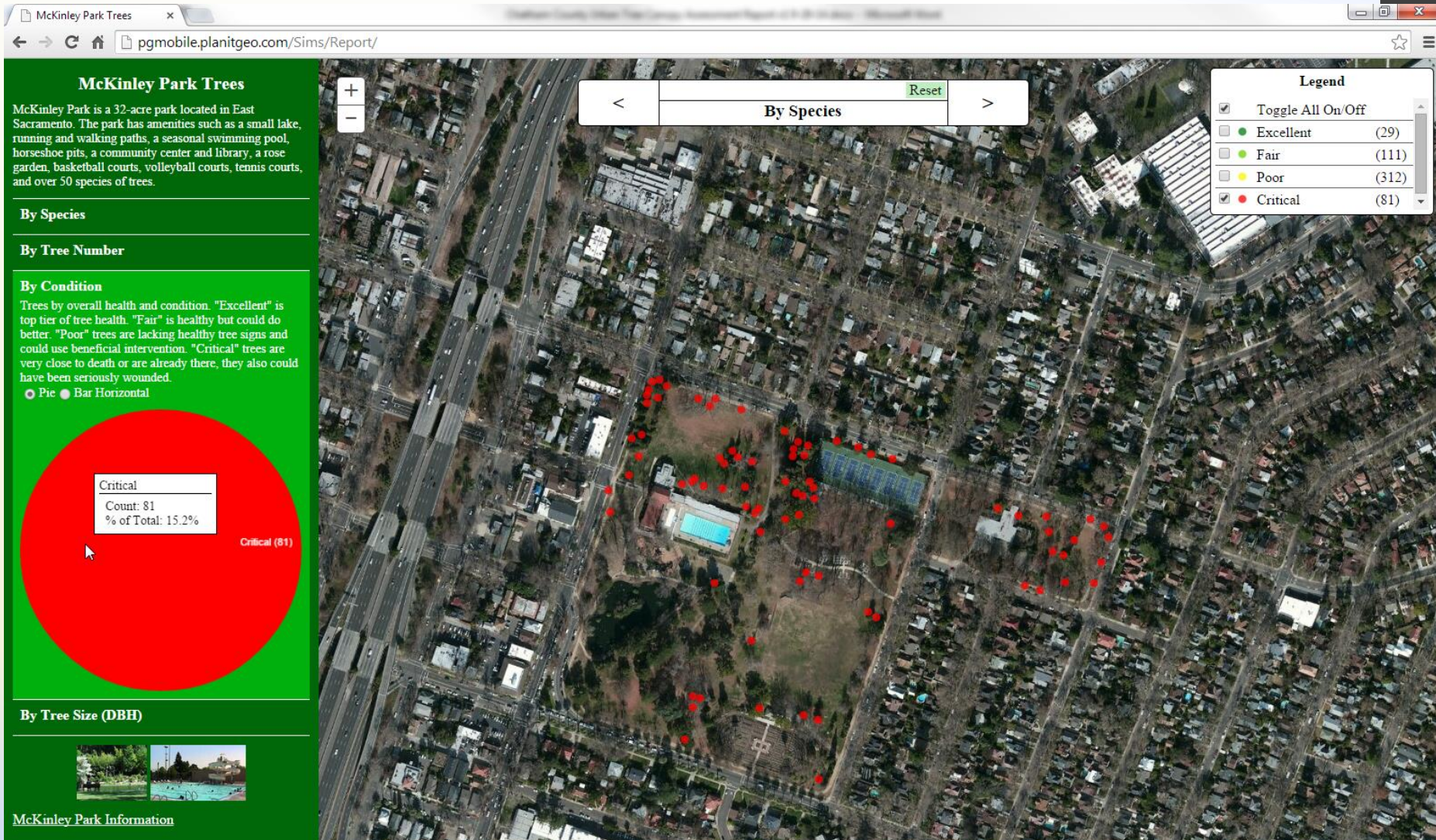
PARK TREE INVENTORY: WEB-BASED REPORTING

What's the Condition of trees in McKinley Park, and how many??



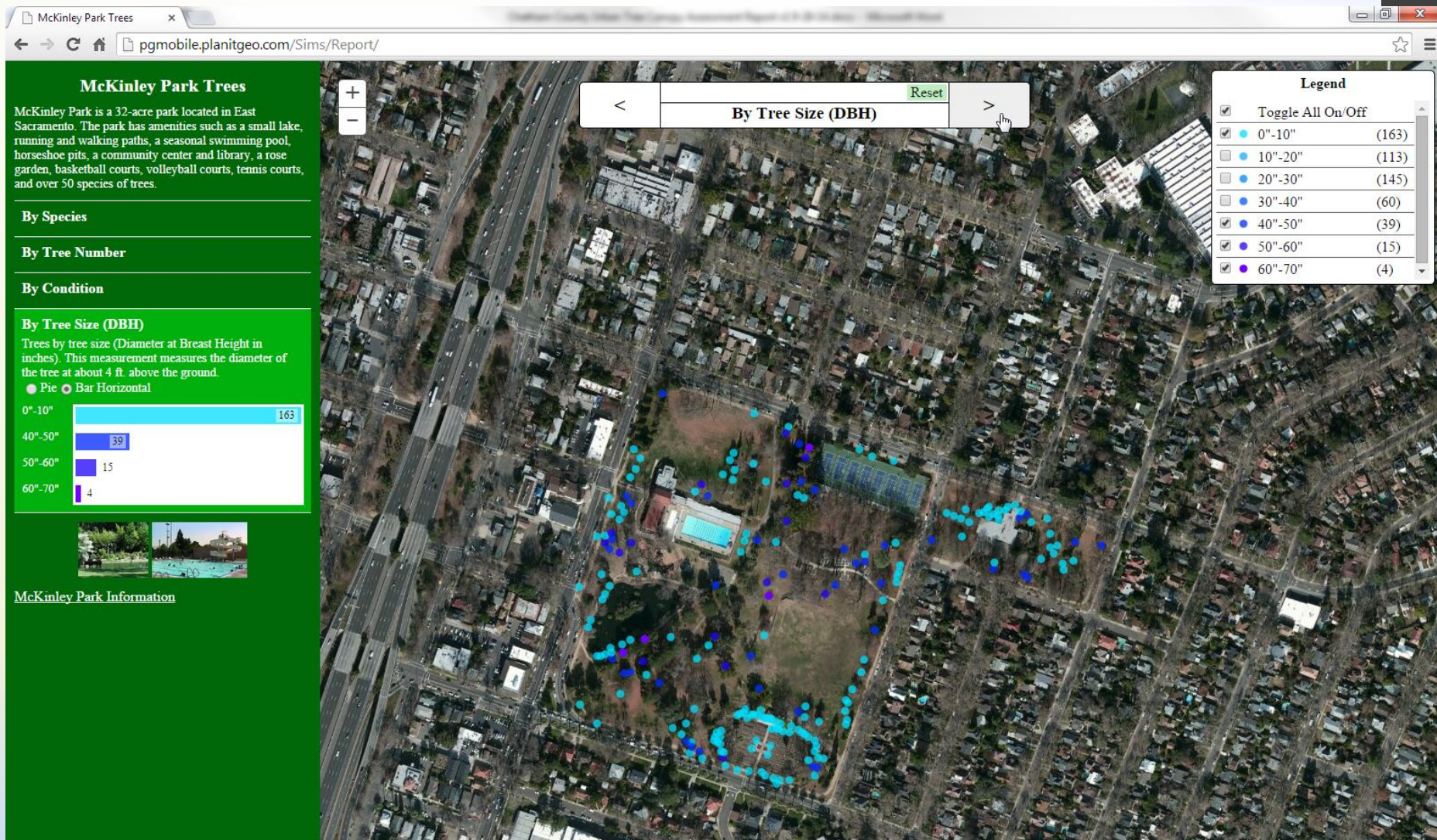
PARK TREE INVENTORY: WEB-BASED REPORTING

Where are there trees in Critical Condition in McKinley Park, and how many??



PARK TREE INVENTORY: WEB-BASED REPORTING

Where are the smallest and largest trees in McKinley Park??



PARK TREE INVENTORY: WEB-BASED REPORTING

Track trees by their ID number. Click on a tree to learn more.

McKinley Park Trees


McKinley Park is a 32-acre park located in East Sacramento. The park has amenities such as a small lake, running and walking paths, a seasonal swimming pool, horseshoe pits, a community center and library, a rose garden, basketball courts, volleyball courts, tennis courts, and over 50 species of trees.

By Species

By Tree Number

By Condition

By Tree Size (DBH)



[McKinley Park Information](#)

McKinley Park Trees

pgmobile.planitgeo.com/Sims/Report/

<

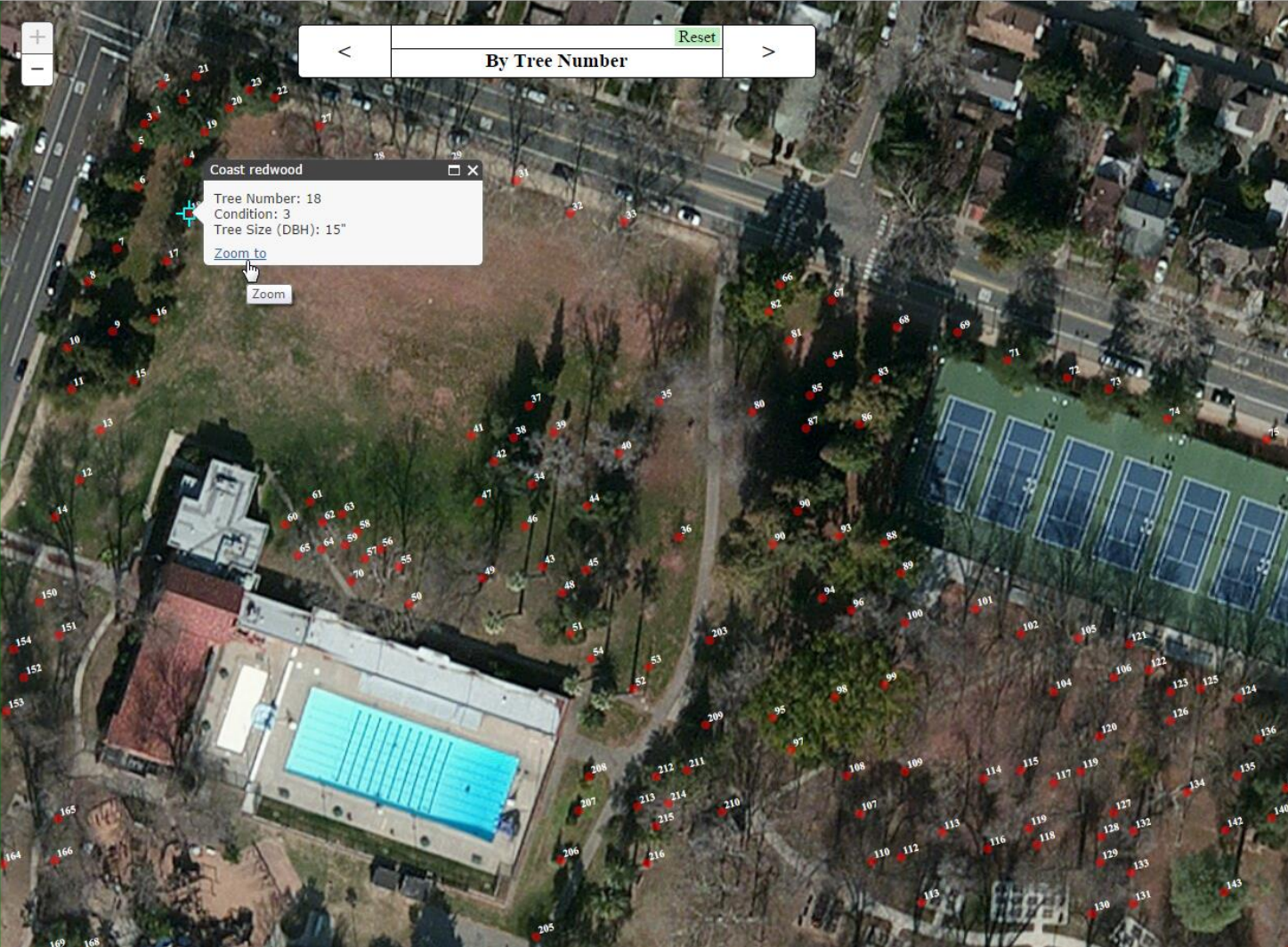
By Tree Number

>

Reset

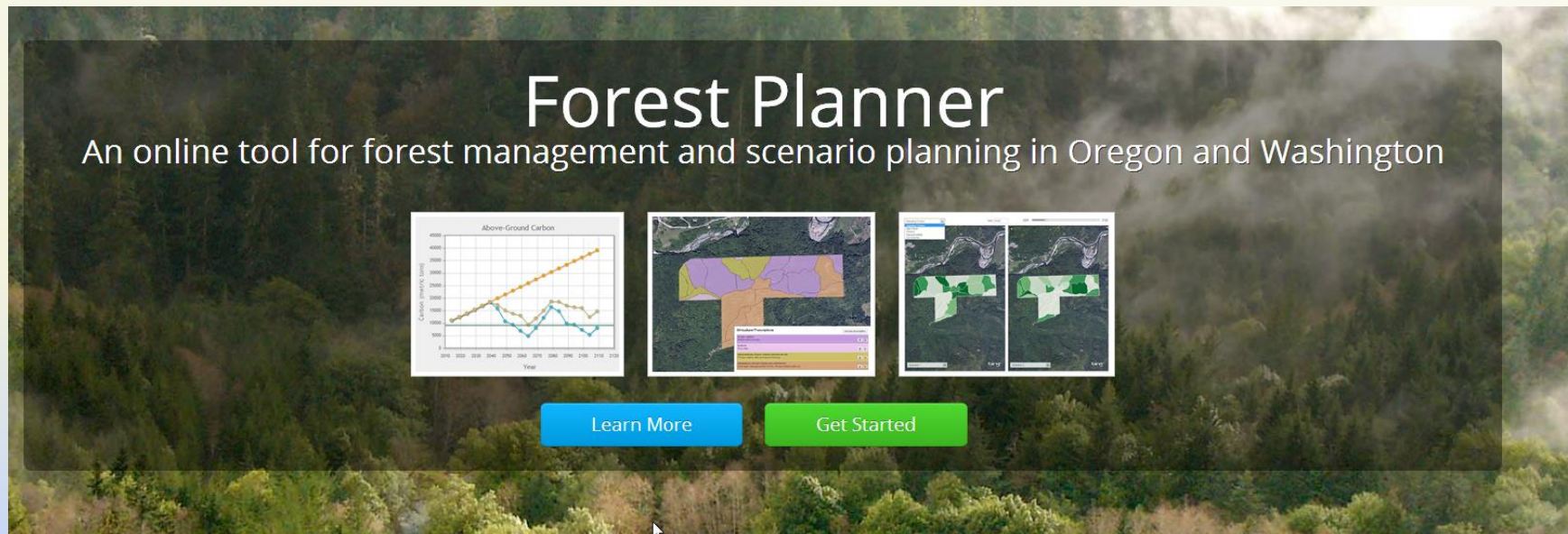
Coast redwood

Tree Number: 18
Condition: 3
Tree Size (DBH): 15"
[Zoom to](#)
Zoom



<http://forestplanner.ecotrust.org>

- 🌲 Visualize harvest schemes that deliver different returns — timber yields and ecosystem services such as carbon storage/sequestration and habitat
- 🌲 Step-by-step examples on next slides
- 🌲 Videos at <http://vimeo.com/m/ecotrust>



The banner features a background image of a dense forest. Overlaid on this is a semi-transparent dark rectangle containing the following elements:

- Forest Planner** (Large white text)
- An online tool for forest management and scenario planning in Oregon and Washington (Smaller white text)
- Three small preview images:
 - A line graph titled "Above-Ground Carbon" showing carbon storage in metric tons over time (2010-2100) for different scenarios.
 - A map showing a forest landscape with various colored zones representing different management areas.
 - Two side-by-side maps showing different spatial configurations of forest management units.
- Two buttons at the bottom: "Learn More" (blue) and "Get Started" (green).

Forest Planner Home About Documentation Help ihanou

1 Properties: **Ian's Forest Stand** 2 Define Stand Boundaries 3 Define Forest Types 4 Evaluate Future Scenarios

Upload GIS Data Draw New Property

Confirm Stand Boundaries

If you are happy with your stand, click on "Save Stand and Add Another." If it isn't right, click on the "Discard" button.

Discard Save Stand and Add Another

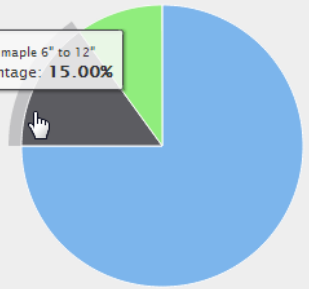
Save Stand and

Create a Forest Type

Name Your Forest Type
Even Aged Douglas-Fir and Riparian Mix

Stand Age (in years)
20

Species Breakdown

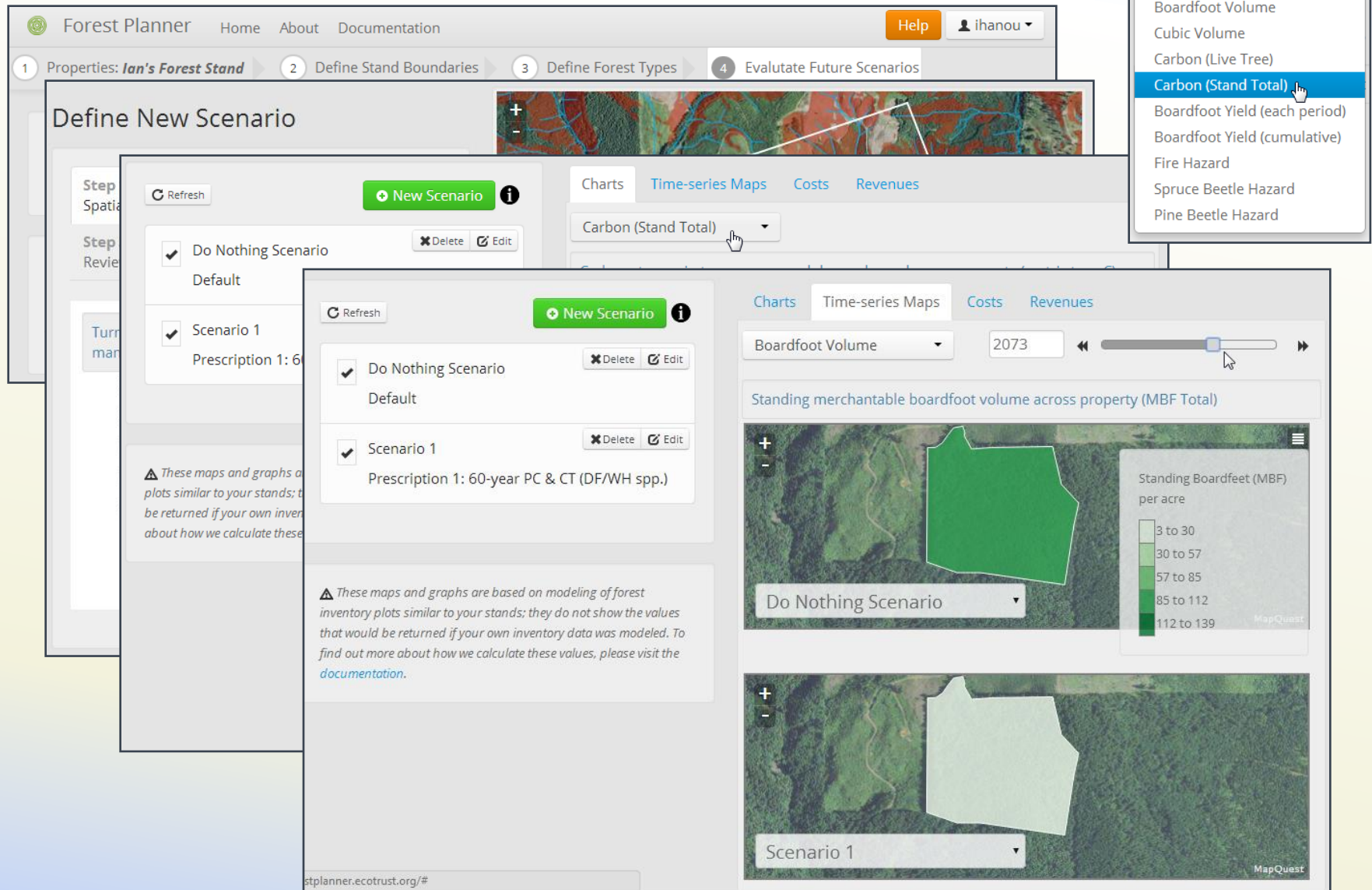


Bigleaf maple 6" to 12"
Percentage: 15.00%

Species	Size Class	Density (trees per acre)	Percentage	
Douglas-fir	12" to 24"	150	75%	Edit Delete
Bigleaf maple	6" to 12"	30	15%	Edit Delete
Cherry	6" to 12"	20	10%	Edit Delete
<input type="text" value="Add a Species"/>	<input type="text"/>	<input type="text"/>		Save Species

cancel [Save Forest Type](#)

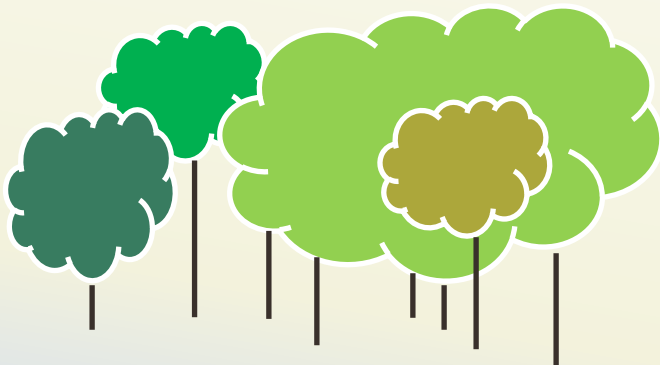
FOREST PLANNER (ECOTRUST)



THANK YOU - CONTACT US

Ian Hanou, Owner and Director, Business Development
(303) 503-4846 | IanHanou@PlanItGeo.com

Richard Thureau, Ph.D., Owner and Principal Scientist
(812) 679-7563 | RichardThureau@PlanItGeo.com



*A geospatial analysis,
technology consulting, and
planning firm specializing in
urban natural resource
management.*

Info@PlanItGeo.com
www.planitgeo.com