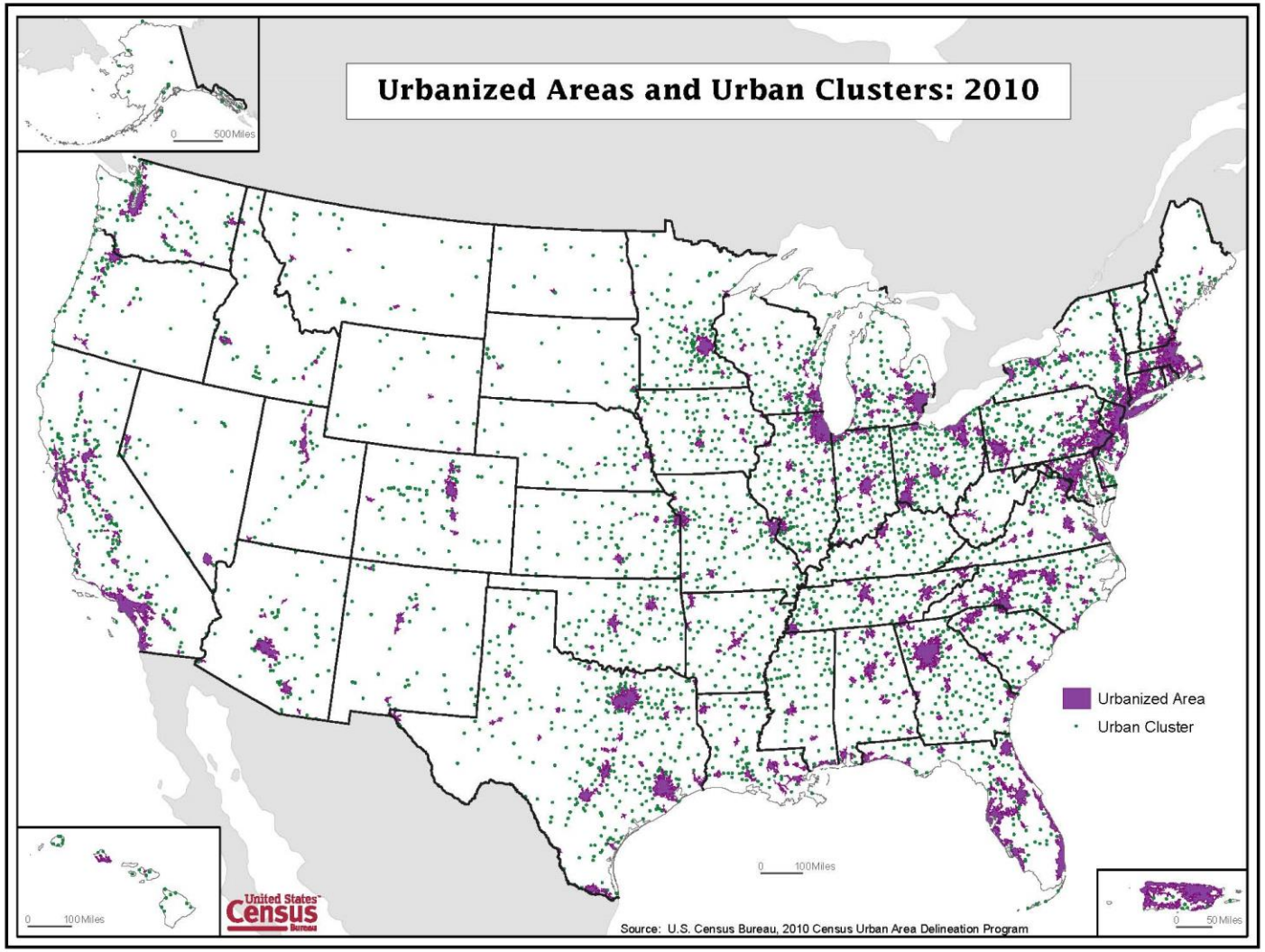
Urban Tree Inventory
2022 Edition

Joanne Garton, Technical Assistance Coordinator

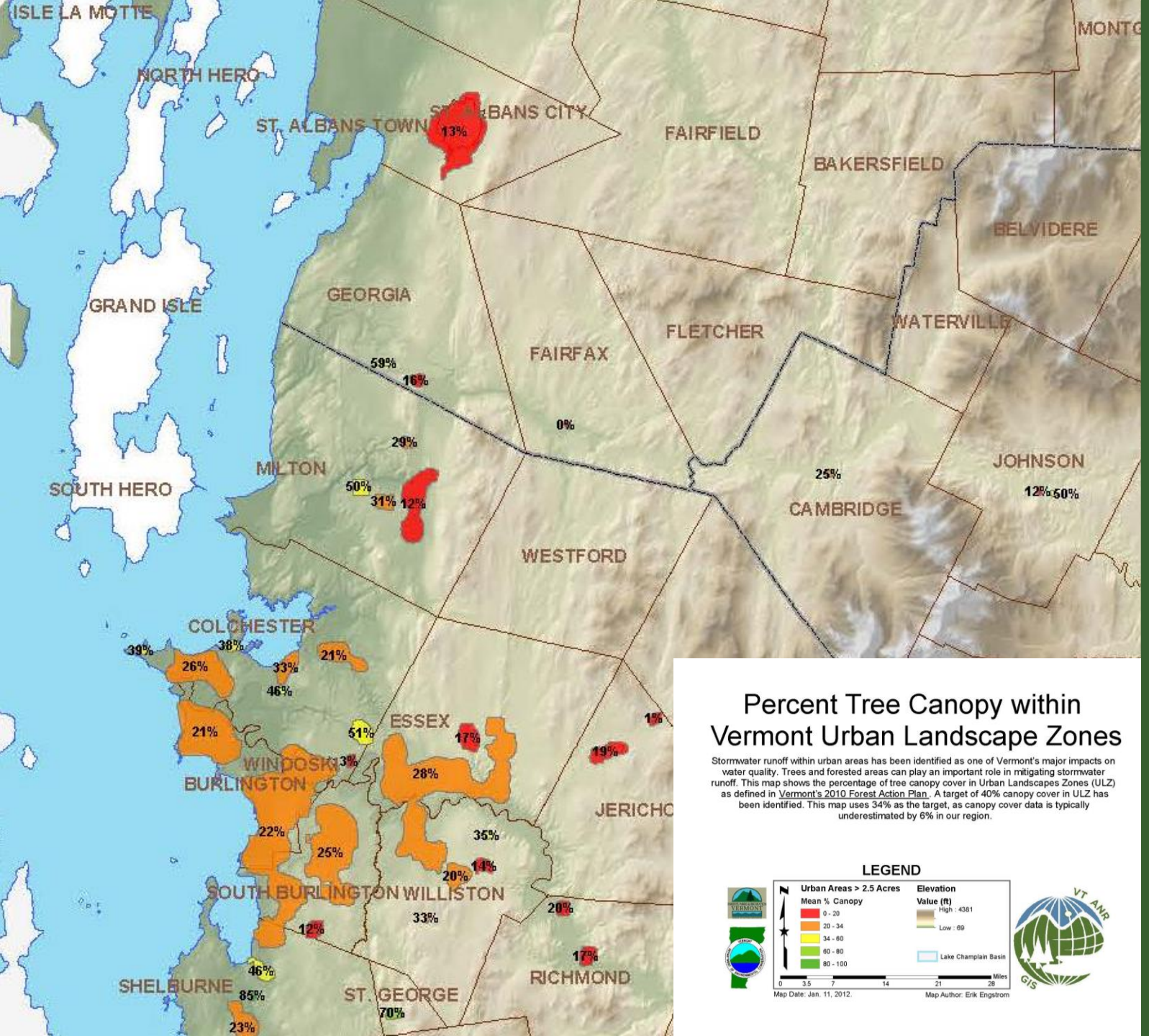
Vermont Urban & Community Forestry Program
Vermont Department of Forests, Parks & Recreation



Urban Forestry in the United States

What is urban?

- ~ 3% of U.S. land area is considered “urban area”
- ~ 80% of U.S. population lives in an urban area
- 12% growth in U.S. urban area population between 2000-2012



Percent Tree Canopy within Vermont Urban Landscape Zones

Stormwater runoff within urban areas has been identified as one of Vermont's major impacts on water quality. Trees and forested areas can play an important role in mitigating stormwater runoff. This map shows the percentage of tree canopy cover in Urban Landscapes Zones (ULZ) as defined in Vermont's 2010 Forest Action Plan. A target of 40% canopy cover in ULZ has been identified. This map uses 34% as the target, as canopy cover data is typically underestimated by 6% in our region.

Vermont's Urban Forests

- Over 243,000 (38.9%) of Vermonters live within a defined Urban Area, described as having:
  - high population density
  - high impervious surface area
  - low tree canopy cover
- There are approximately 12 million urban trees in Vermont's downtowns that provide an average canopy cover of 31% of urban land area.

What does “urban and community forest stewardship” look like in Vermont?

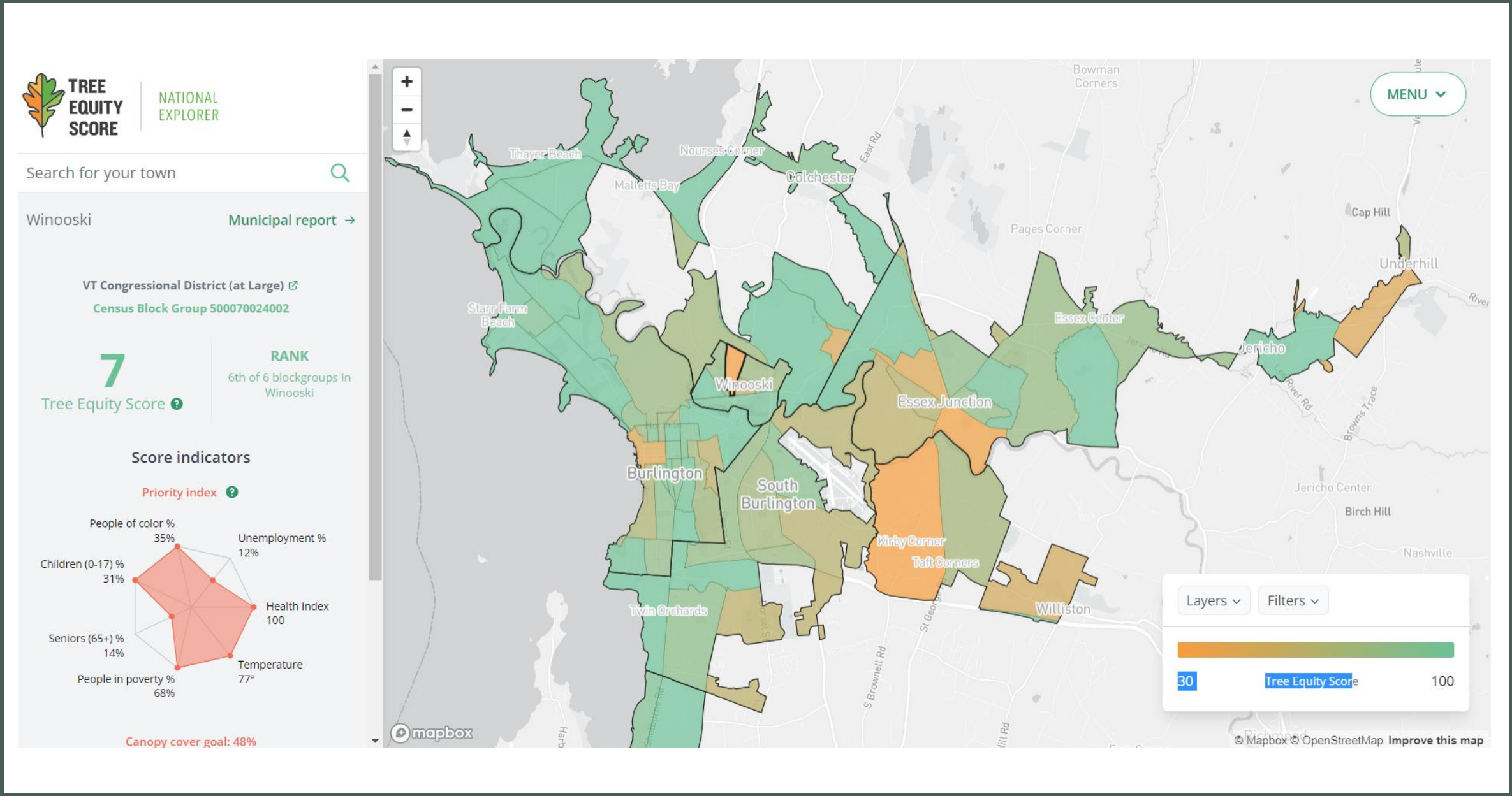
9 Tree City USA Communities

- City of Burlington (28 years)
- Village of Essex Junction (7 years)
- Town of Hartford (19 years)
- Town of Middlebury (4 years)
- City of Montpelier (20 years)
- City of Rutland (30 years)
- City of South Burlington (14 years)
- Town of Shelburne (5 years)
- City of Winooski (3 years)

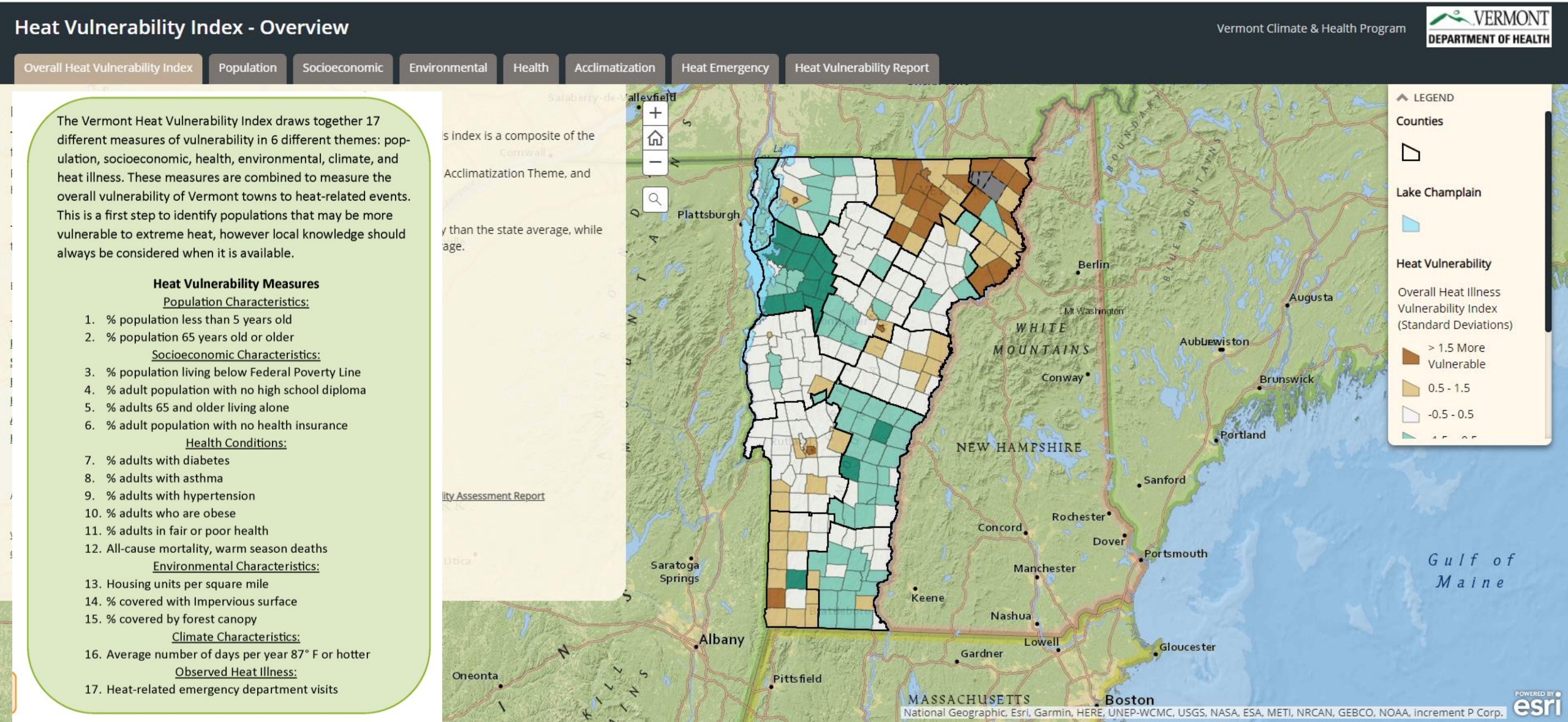
Homegrown Help

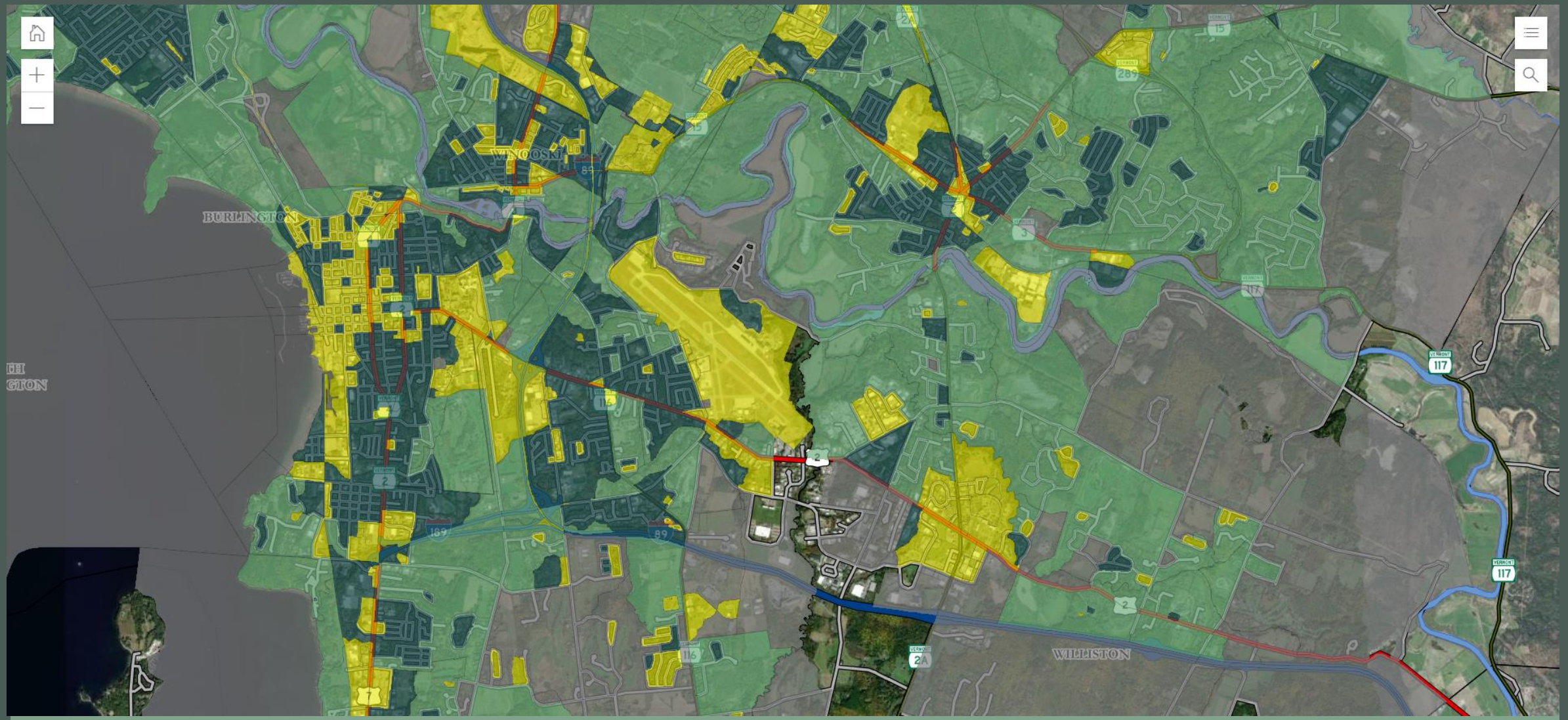
In 2022:

- municipal volunteers provided 10,250 hours of work (that we know of!)
- over 100 communities are developing or managing an urban & community forestry program
- over 129 communities received UCF Assistance


TREE EQUITY SCORE
NATIONAL EXPLORER
Search for your town
Winooski
Municipal report →
VT Congressional District (at Large)
Census Block Group 500070024002
7
Tree Equity Score
RANK
6th of 6 blockgroups in Winooski
Score indicators
Priority index
People of color % 35%
Unemployment % 12%
Children (0-17) % 31%
Health Index 100
Seniors (65+) % 14%
Temperature 77°
People in poverty % 68%
Canopy cover goal: 48%
MENU
Thayer Beach
Nourses Corner
Malletts Bay
Colchester
Bowman Corners
Pages Corner
Cap Hill
Underhill
Starr Farm Beach
Essex Center
Jericho
Winooski
Essex Junction
Burlington
South Burlington
Kirby Corner
Taft Corners
Williston
Twin Orchards
Jericho Center
Birch Hill
Nashville
Layers
Filters
30
Tree Equity Score
100
mapbox
© Mapbox © OpenStreetMap Improve this map

VERMONT DEPARTMENT OF HEALTH





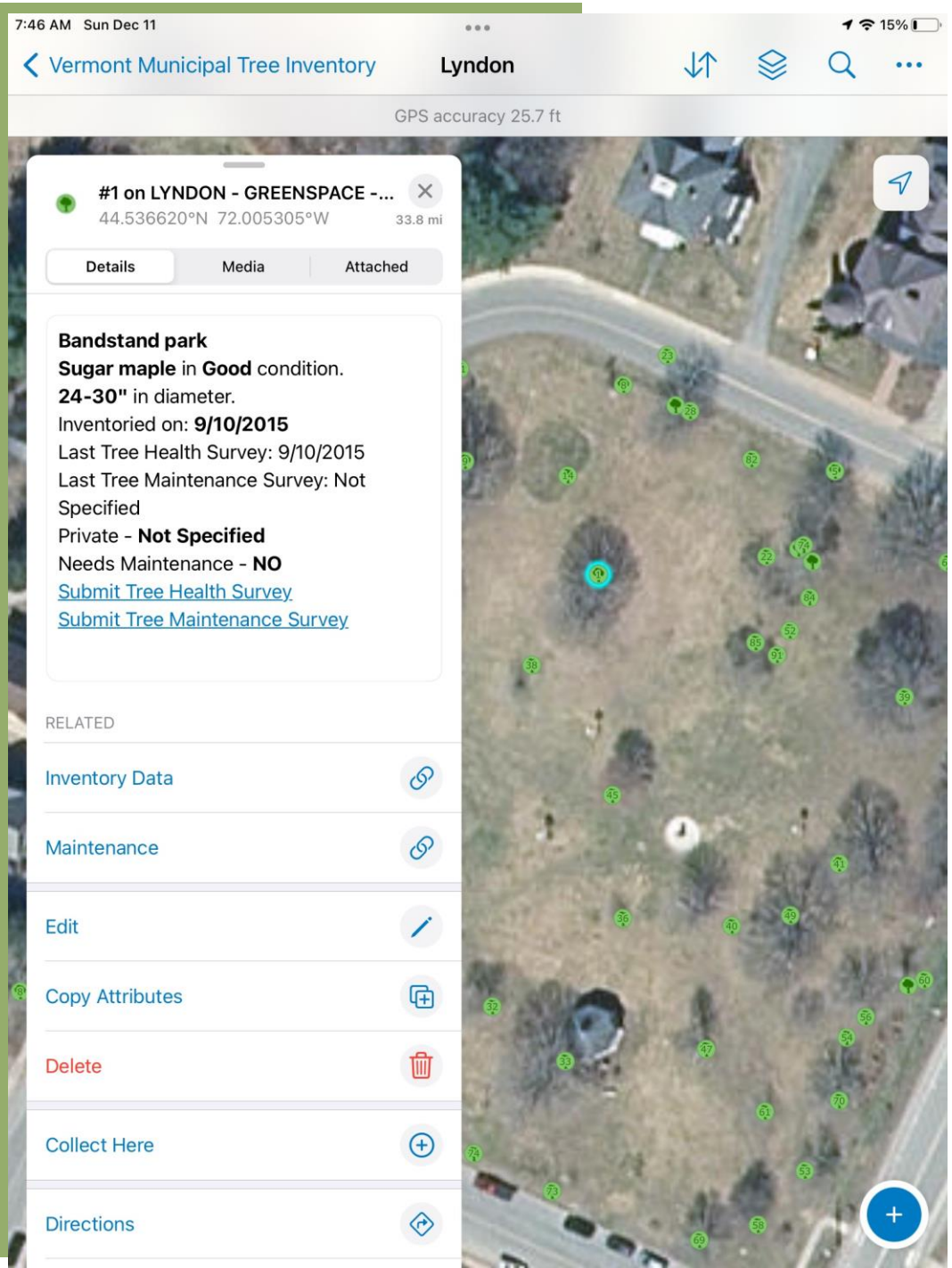
Tree Canopy Cover in Downtown Centers

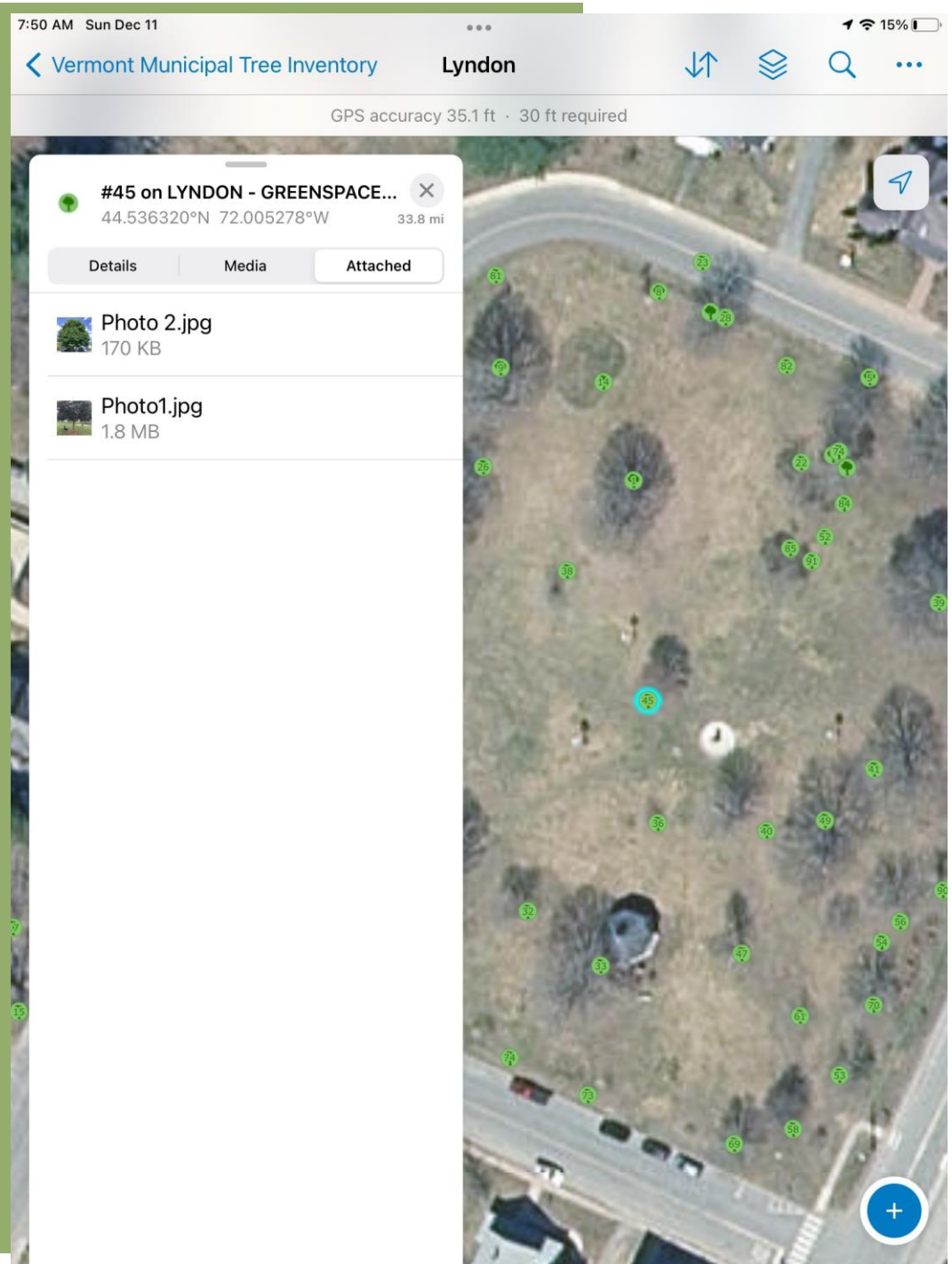
Municipal Tree Inventory Tool

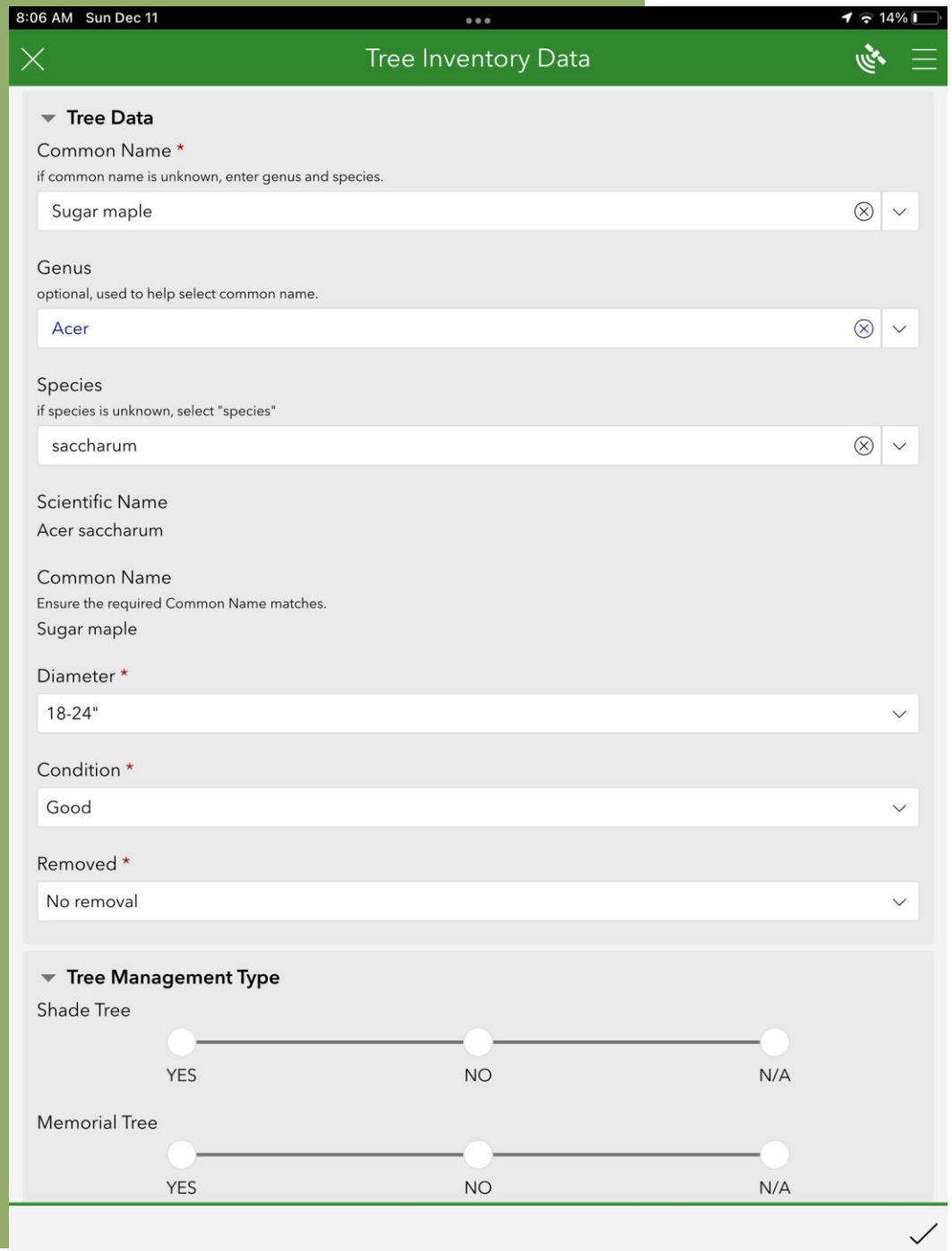
- First built in 2013 as part of a grant-funded initiative called Caring for the Urban Forest, VT UCF and ANR GIS built the tool utilizing ArcGIS Collector
- Twenty municipalities completed public tree inventories and a strategic tree management plan
- When the technology became available in 2017, nine towns received an Urban Tree Editor Tool, transitioning their inventory data from a snapshot in time to a live and manageable database
- In 2022, the tool needed an update to reflect user interests and new technology. ANR GIS promoted some of their newest technology to improve the utility of the tool and showcase powerful data filters.

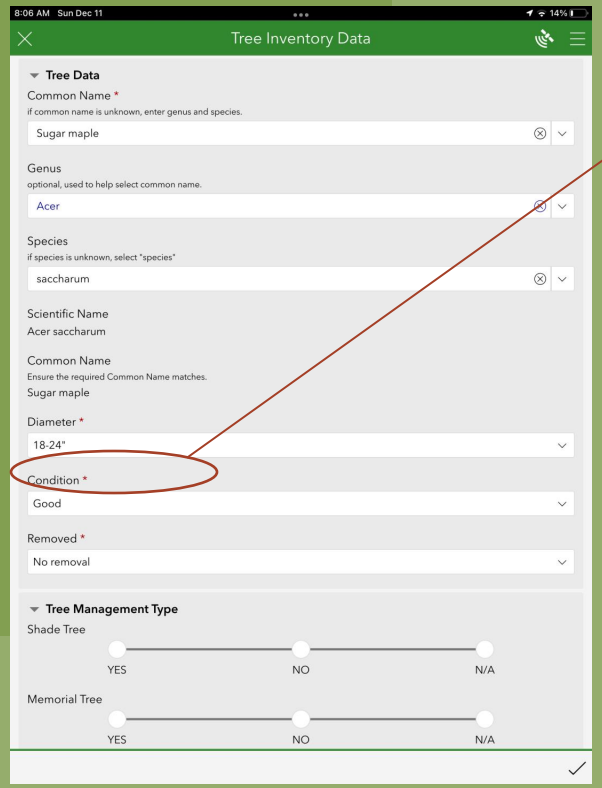
Vermont Municipal Tree Inventory
Filter
Tree Species
Tree Condition
Tree Diameter
Vacant Trees
Trees to Remove
Tree Survey Date
Needs Consulting
Needs Maintenance
Trees to Monitor
Planting Date
Last Maintenance
Tree Management Types
Maintenance Requirements
Passumpsic River
PARK AVE
MAPLE ST
MIDDLE ST
MAIN ST
CHURCH ST
ELM ST
RAYMOND ST
DEPOT ST
RTE 2
100ft
-72.005 44.537 Degrees

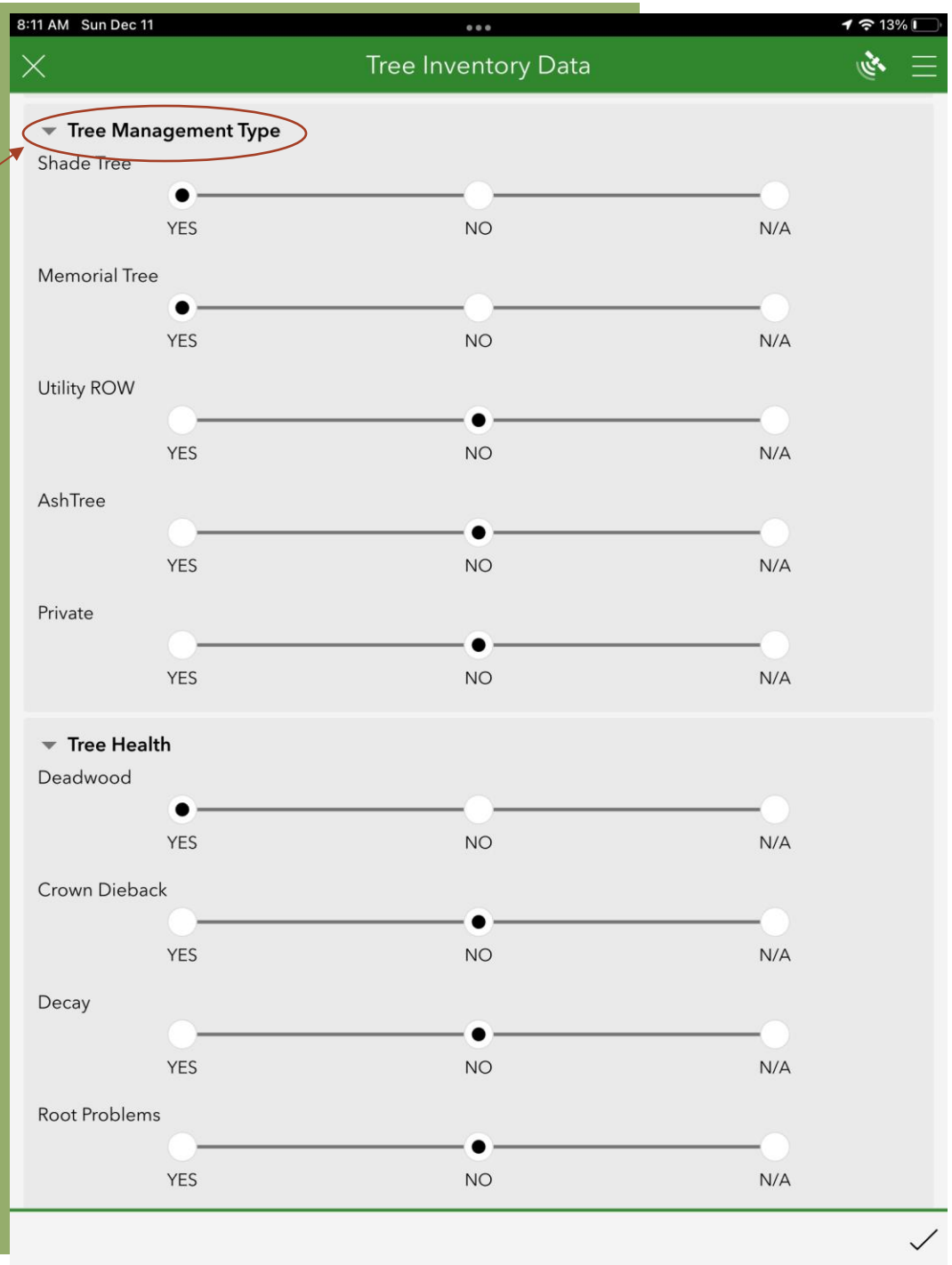
Vermont Municipal Tree Inventory
Filter
Tree Species
Tree Condition
Tree Diameter
Vacant Trees
Trees to Remove
Tree Survey Date
Needs Consulting
Needs Maintenance
Trees to Monitor
Planting Date
Last Maintenance
Tree Management Types
Maintenance Requirements
#64 - LYNDON - GREENSPACE - PARK
LITTLELEAF LINDEN in GOOD condition.
12-18" in diameter.
Inventoried on: 9/10/2015
Last Tree Health Survey: 5/6/2022
Last Tree Maintenance Survey: 5/6/2022
Needs Maintenance: YES
Private: Not Specified
Photo1.jpg
Zoom to
60ft
-72.005 44.536 Degrees

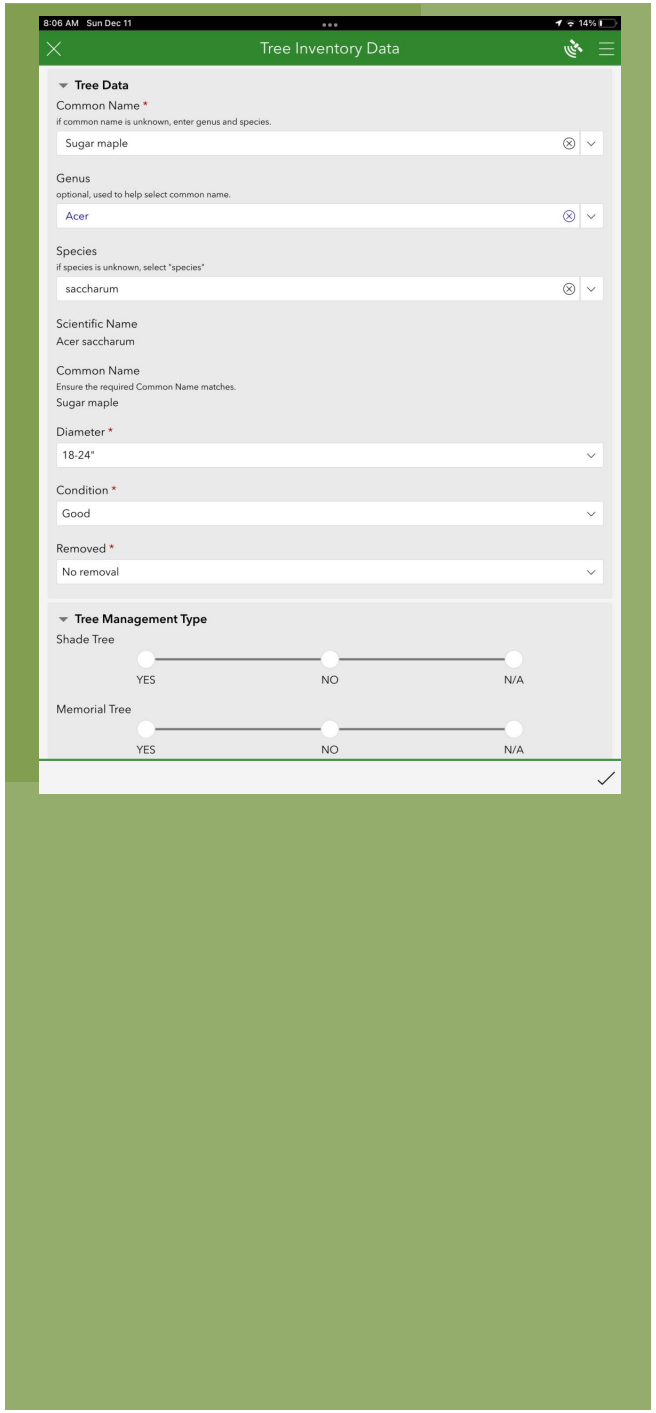

7:46 AM Sun Dec 11
15%
Vermont Municipal Tree Inventory
Lyndon
GPS accuracy 25.7 ft
#1 on LYNDON - GREENSPACE -...
44.536620°N 72.005305°W
33.8 mi
Details
Media
Attached
Bandstand park
Sugar maple in Good condition.
24-30" in diameter.
Inventoried on: 9/10/2015
Last Tree Health Survey: 9/10/2015
Last Tree Maintenance Survey: Not Specified
Private - Not Specified
Needs Maintenance - NO
Submit Tree Health Survey
Submit Tree Maintenance Survey
RELATED
Inventory Data
Maintenance
Edit
Copy Attributes
Delete
Collect Here
Directions


7:50 AM Sun Dec 11
15%
Vermont Municipal Tree Inventory
Lyndon
GPS accuracy 35.1 ft · 30 ft required
#45 on LYNDON - GREENSPACE...
44.536320°N 72.005278°W
33.8 mi
Details
Media
Attached
Photo 2.jpg
170 KB
Photo1.jpg
1.8 MB

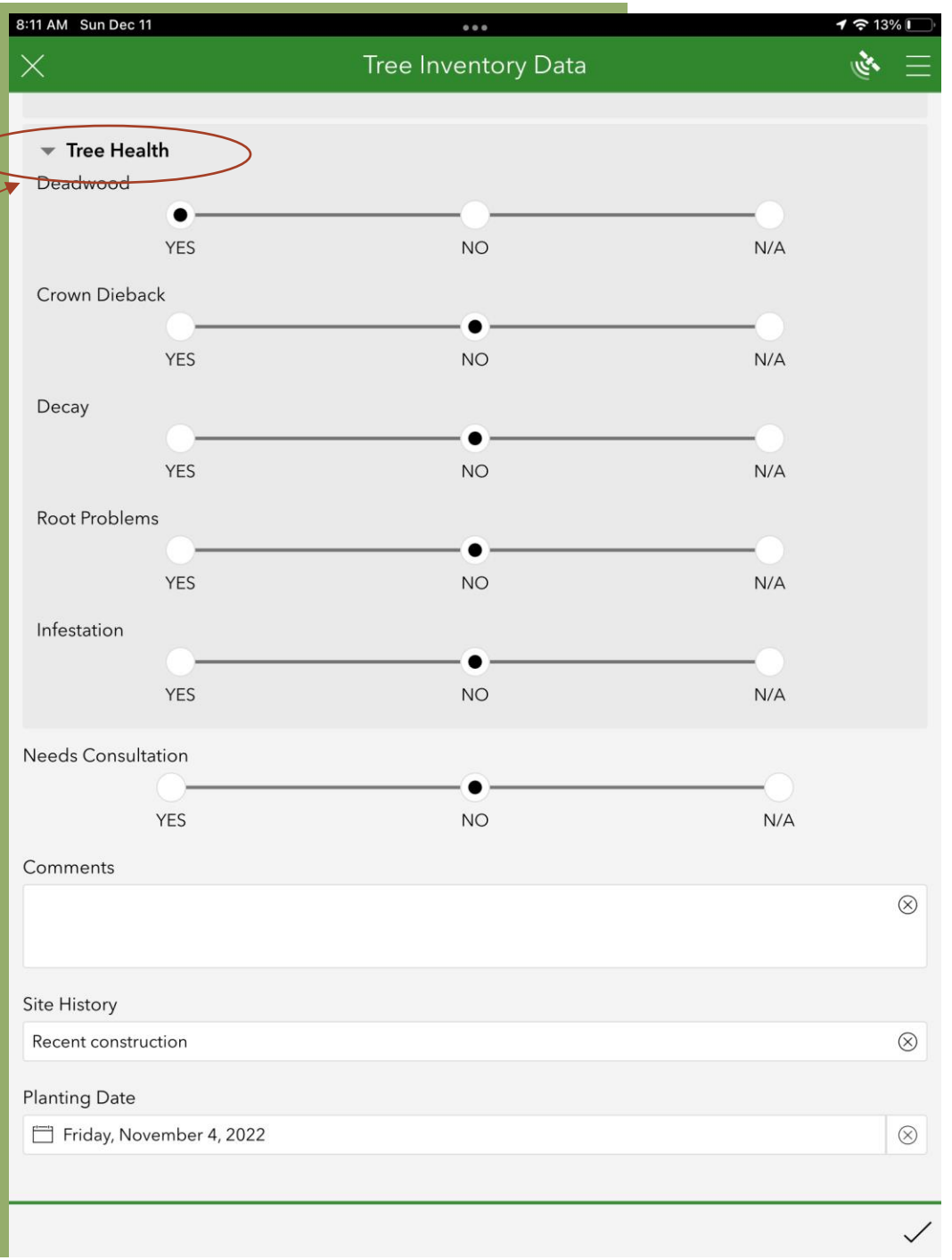

8:06 AM Sun Dec 11
14%
Tree Inventory Data
Tree Data
Common Name *
if common name is unknown, enter genus and species.
Sugar maple
Genus
optional, used to help select common name.
Acer
Species
if species is unknown, select "species"
saccharum
Scientific Name
Acer saccharum
Common Name
Ensure the required Common Name matches.
Sugar maple
Diameter *
18-24"
Condition *
Good
Removed *
No removal
Tree Management Type
Shade Tree
YES
NO
N/A
Memorial Tree
YES
NO
N/A


8:06 AM Sun Dec 11
14%
Tree Inventory Data
Tree Data
Common Name *
if common name is unknown, enter genus and species.
Sugar maple
Genus
optional, used to help select common name.
Acer
Species
if species is unknown, select "species"
saccharum
Scientific Name
Acer saccharum
Common Name
Ensure the required Common Name matches.
Sugar maple
Diameter *
18-24"
Condition *
Good
Removed *
No removal
Tree Management Type
Shade Tree
YES
NO
N/A
Memorial Tree
YES
NO
N/A

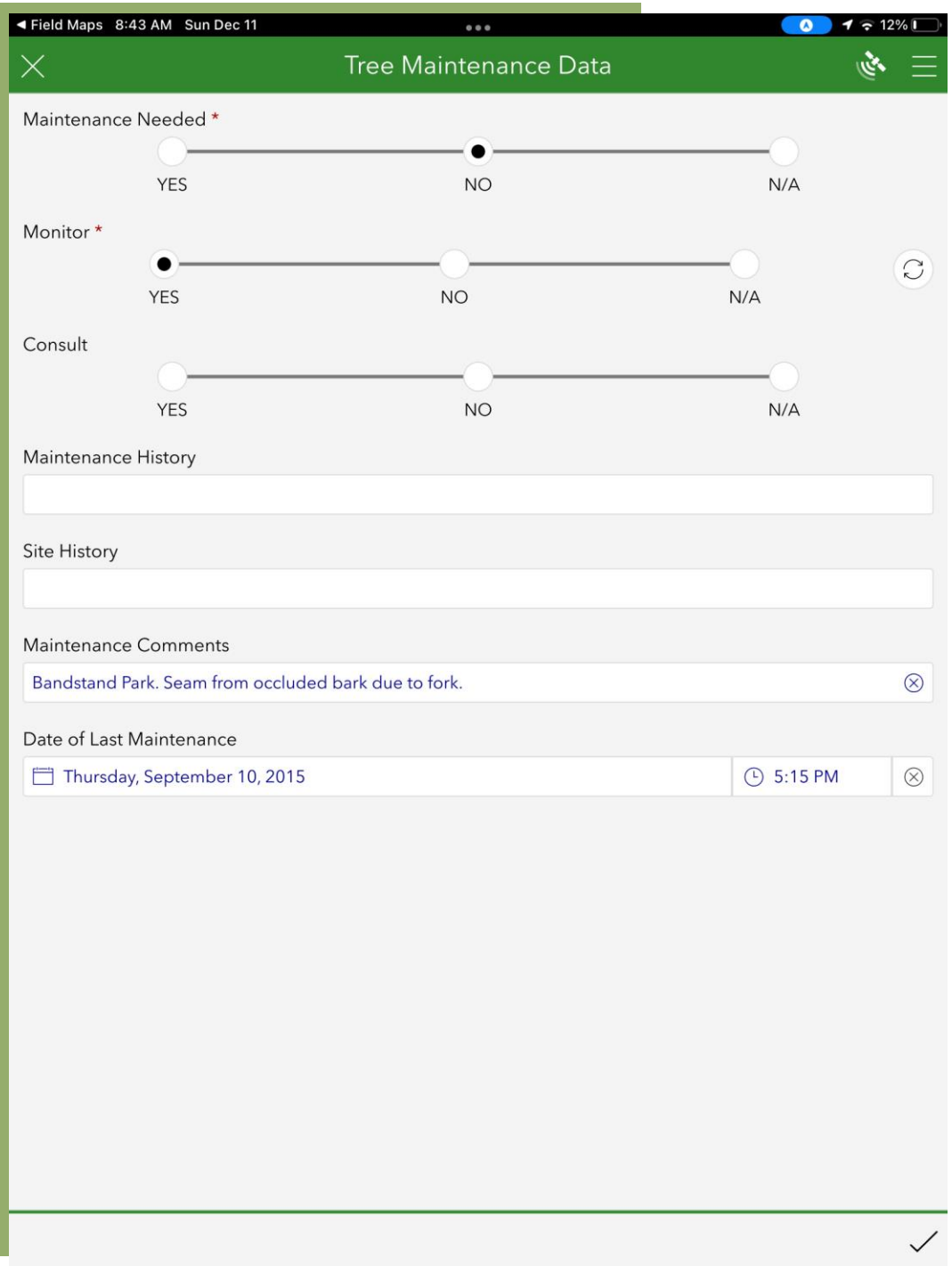

8:11 AM Sun Dec 11
13%
Tree Inventory Data
Tree Management Type
Shade Tree
YES
NO
N/A
Memorial Tree
YES
NO
N/A
Utility ROW
YES
NO
N/A
AshTree
YES
NO
N/A
Private
YES
NO
N/A
Tree Health
Deadwood
YES
NO
N/A
Crown Dieback
YES
NO
N/A
Decay
YES
NO
N/A
Root Problems
YES
NO
N/A

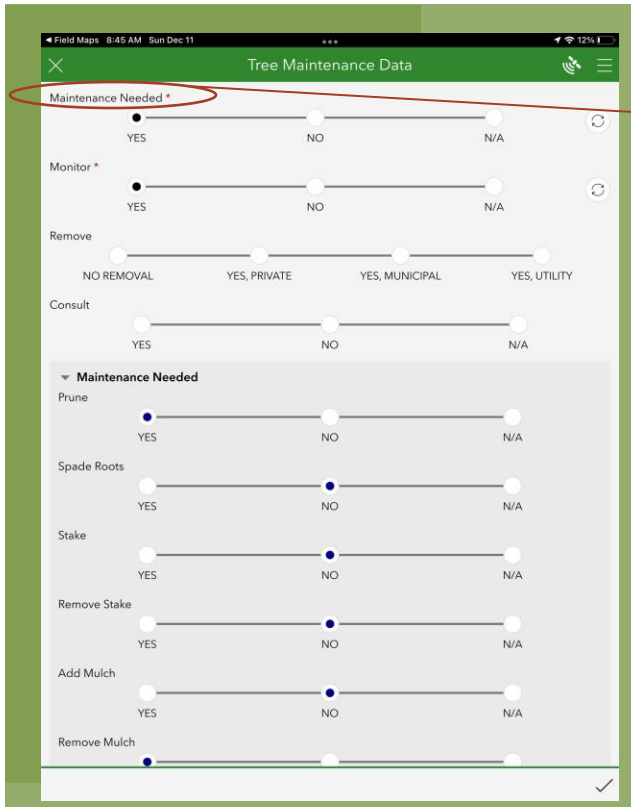

8:06 AM Sun Dec 11
14%
Tree Inventory Data
Tree Data
Common Name *
if common name is unknown, enter genus and species.
Sugar maple
Genus
optional, used to help select common name.
Acer
Species
if species is unknown, select "species"
saccharum
Scientific Name
Acer saccharum
Common Name
Ensure the required Common Name matches.
Sugar maple
Diameter *
18-24"
Condition *
Good
Removed *
No removal
Tree Management Type
Shade Tree
YES
NO
N/A
Memorial Tree
YES
NO
N/A

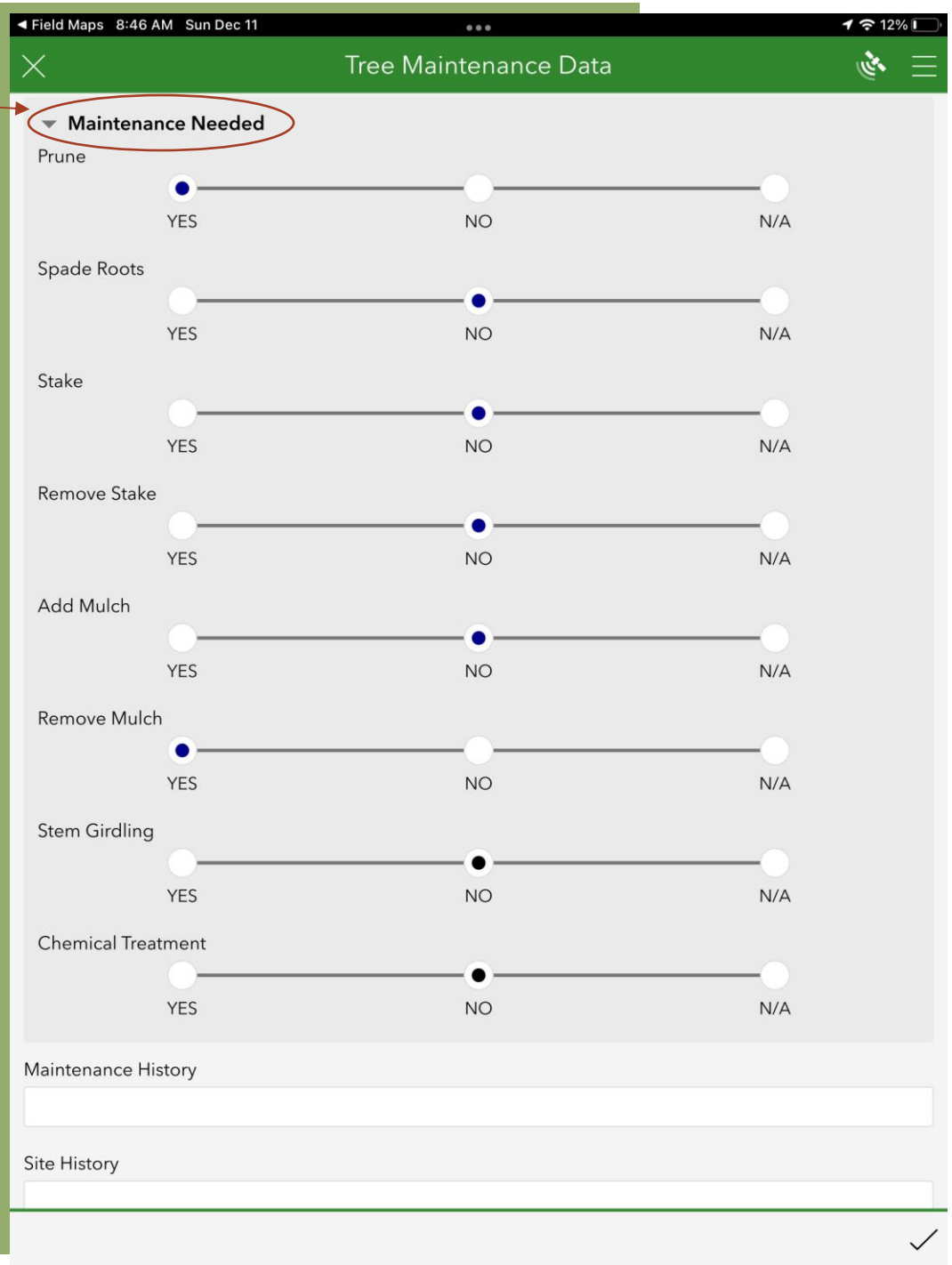
8:11 AM Sun Dec 11
13%
Tree Inventory Data
Tree Management Type
Shade Tree
YES
NO
N/A
Memorial Tree
YES
NO
N/A
Utility ROW
YES
NO
N/A
AshTree
YES
NO
N/A
Private
YES
NO
N/A
Tree Health
Deadwood
YES
NO
N/A
Crown Dieback
YES
NO
N/A
Decay
YES
NO
N/A
Root Problems
YES
NO
N/A

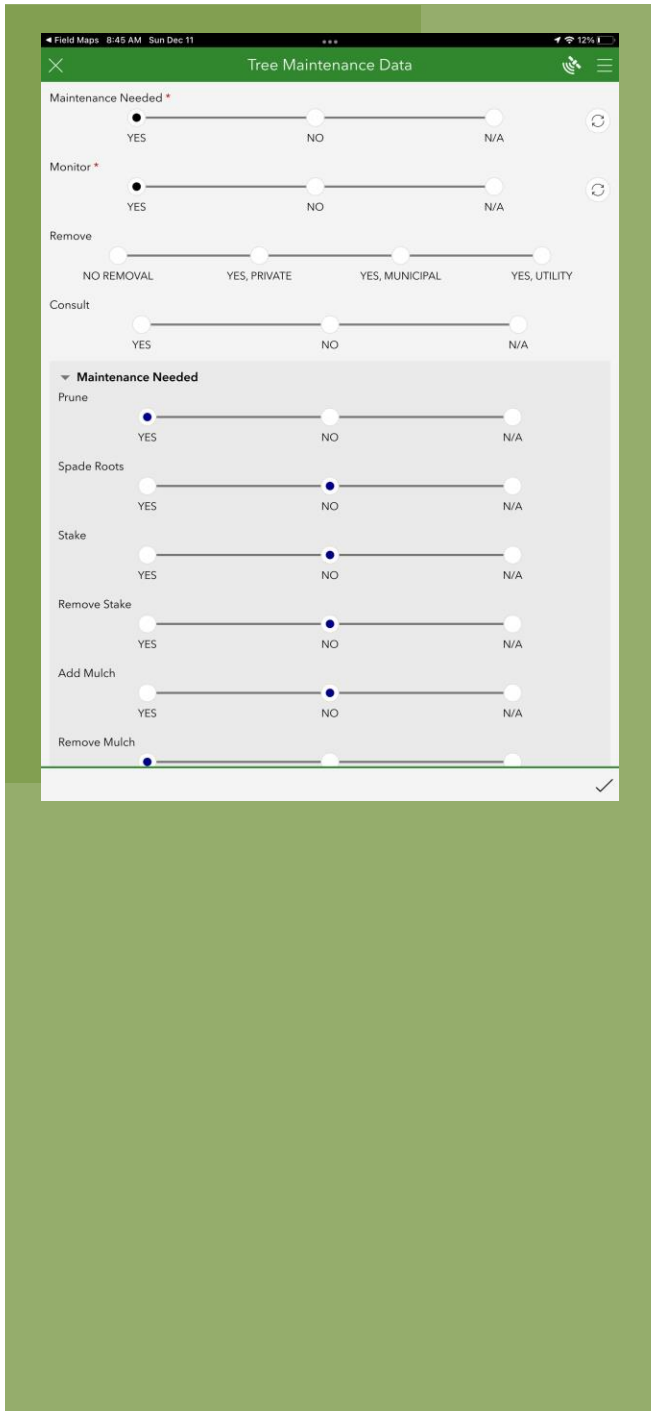

8:11 AM Sun Dec 11
13%
Tree Inventory Data
Tree Health
Deadwood
YES
NO
N/A
Crown Dieback
YES
NO
N/A
Decay
YES
NO
N/A
Root Problems
YES
NO
N/A
Infestation
YES
NO
N/A
Needs Consultation
YES
NO
N/A
Comments
Site History
Recent construction
Planting Date
Friday, November 4, 2022

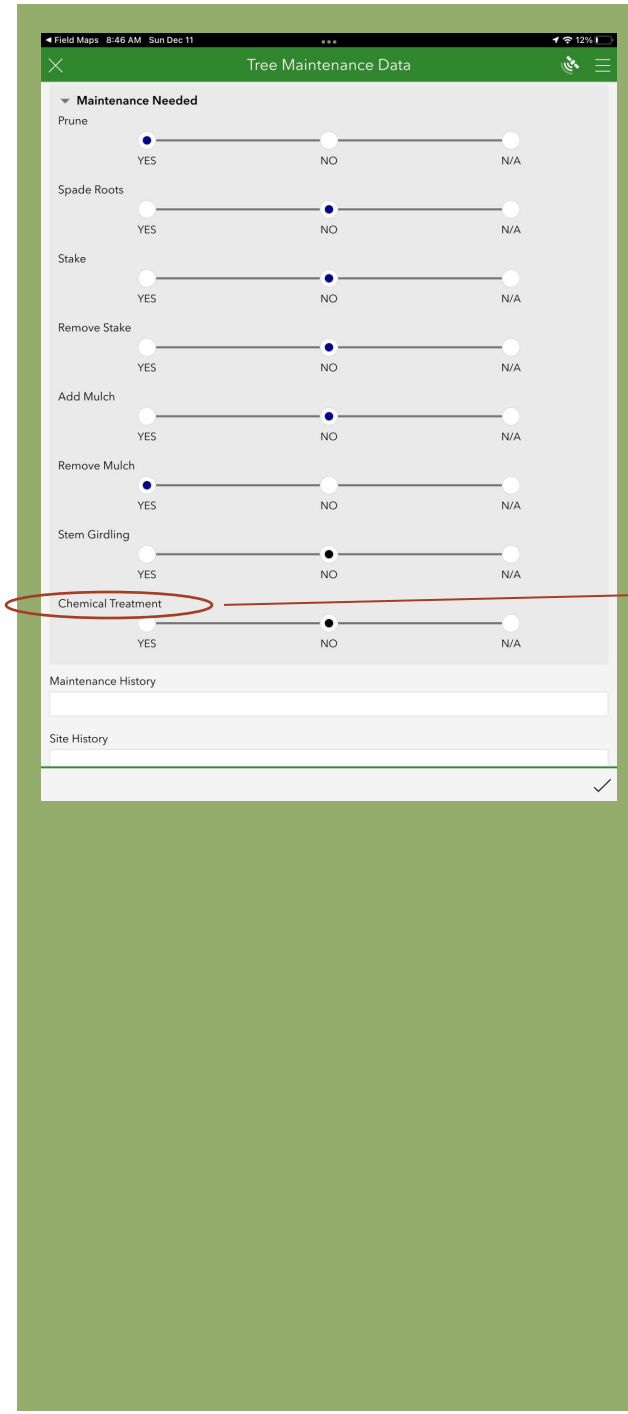
Inventory Complete!

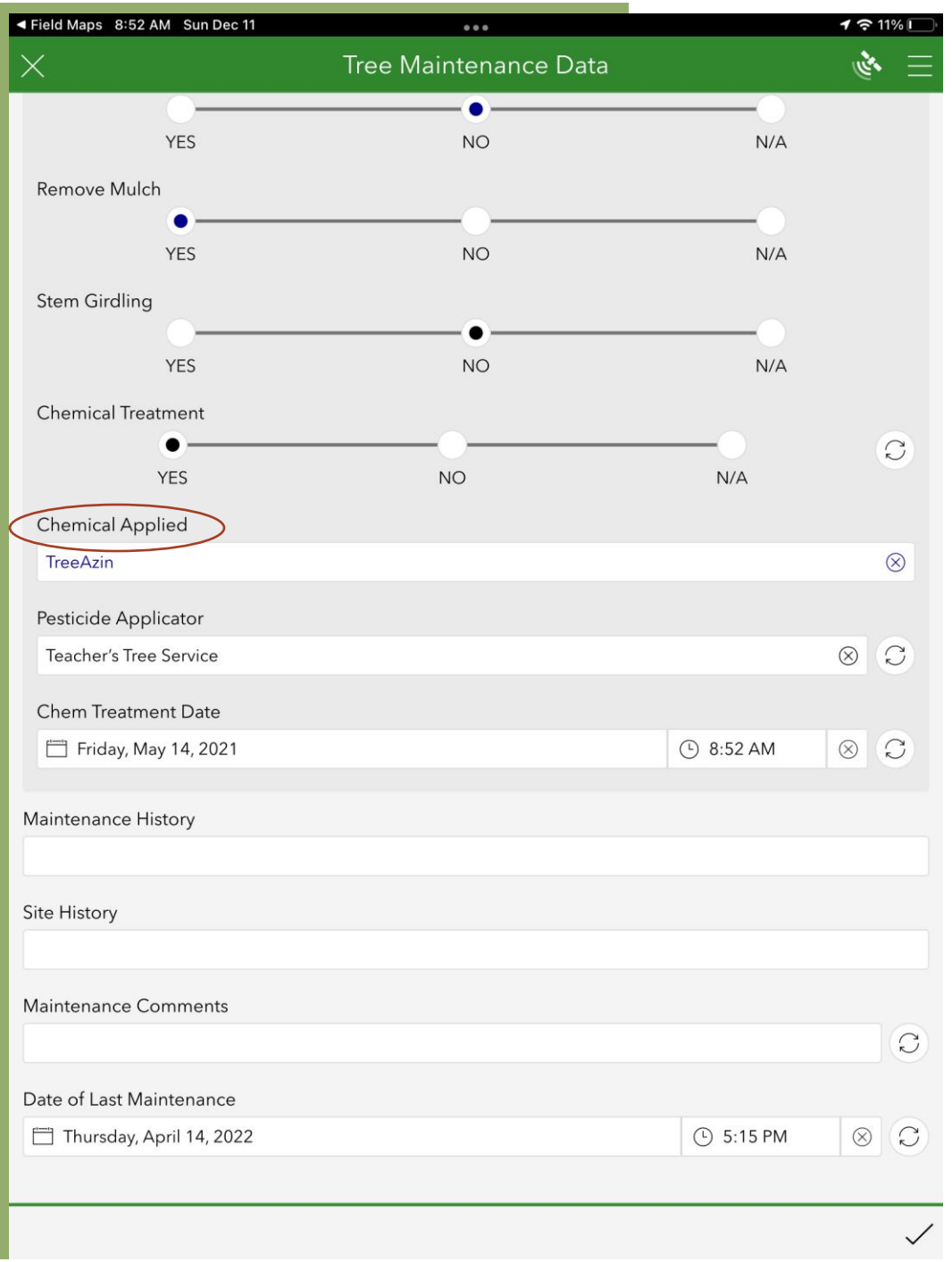

Field Maps 8:43 AM Sun Dec 11
12%
Tree Maintenance Data
Maintenance Needed *
YES
NO
N/A
Monitor *
YES
NO
N/A
Consult
YES
NO
N/A
Maintenance History
Site History
Maintenance Comments
Bandstand Park. Seam from occluded bark due to fork.
Date of Last Maintenance
Thursday, September 10, 2015
5:15 PM


Field Maps 8:45 AM Sun Dec 11
12%
Tree Maintenance Data
Maintenance Needed *
YES
NO
N/A
Monitor *
YES
NO
N/A
Remove
NO REMOVAL
YES, PRIVATE
YES, MUNICIPAL
YES, UTILITY
Consult
YES
NO
N/A
Maintenance Needed
Prune
YES
NO
N/A
Spade Roots
YES
NO
N/A
Stake
YES
NO
N/A
Remove Stake
YES
NO
N/A
Add Mulch
YES
NO
N/A
Remove Mulch


Field Maps 8:46 AM Sun Dec 11
12%
Tree Maintenance Data
Maintenance Needed
Prune
YES
NO
N/A
Spade Roots
YES
NO
N/A
Stake
YES
NO
N/A
Remove Stake
YES
NO
N/A
Add Mulch
YES
NO
N/A
Remove Mulch
YES
NO
N/A
Stem Girdling
YES
NO
N/A
Chemical Treatment
YES
NO
N/A
Maintenance History
Site History


Field Maps 8:45 AM Sun Dec 11
Tree Maintenance Data
Maintenance Needed *
YES
NO
N/A
Monitor *
YES
NO
N/A
Remove
NO REMOVAL
YES, PRIVATE
YES, MUNICIPAL
YES, UTILITY
Consult
YES
NO
N/A
Maintenance Needed
Prune
YES
NO
N/A
Spade Roots
YES
NO
N/A
Stake
YES
NO
N/A
Remove Stake
YES
NO
N/A
Add Mulch
YES
NO
N/A
Remove Mulch

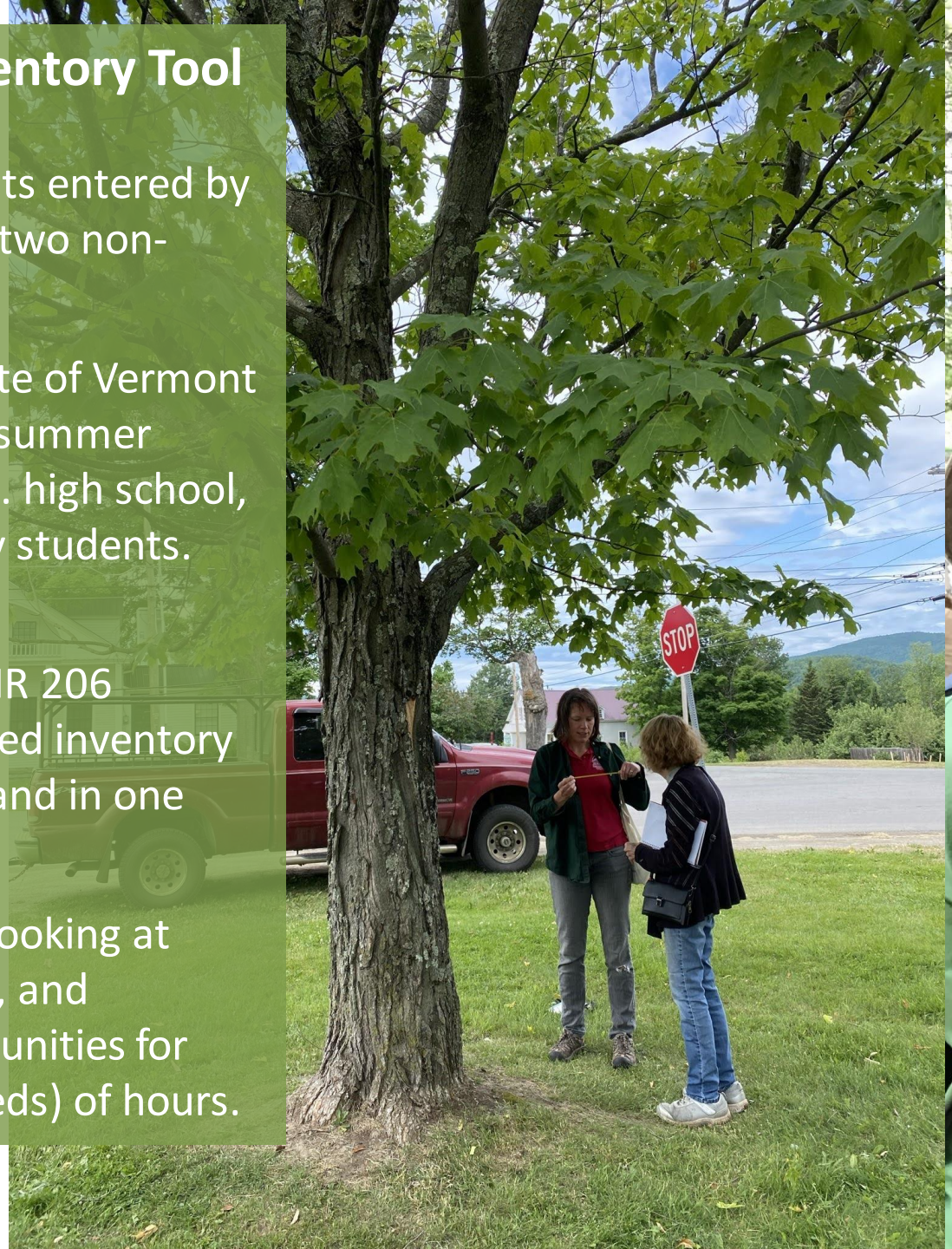

Field Maps 8:46 AM Sun Dec 11
Tree Maintenance Data
Maintenance Needed
Prune
YES
NO
N/A
Spade Roots
YES
NO
N/A
Stake
YES
NO
N/A
Remove Stake
YES
NO
N/A
Add Mulch
YES
NO
N/A
Remove Mulch
YES
NO
N/A
Stem Girdling
YES
NO
N/A
Chemical Treatment
YES
NO
N/A
Maintenance History
Site History


Field Maps 8:52 AM Sun Dec 11
11%
Tree Maintenance Data
YES
NO
N/A
Remove Mulch
YES
NO
N/A
Stem Girdling
YES
NO
N/A
Chemical Treatment
YES
NO
N/A
Chemical Applied
TreeAzin
Pesticide Applicator
Teacher's Tree Service
Chem Treatment Date
Friday, May 14, 2021
8:52 AM
Maintenance History
Site History
Maintenance Comments
Date of Last Maintenance
Thursday, April 14, 2022
5:15 PM

Maintenance Inventory Complete!

Municipal Tree Inventory Tool

- Over 24,000 data points entered by 34 municipalities and two non-profits.
- Data is entered by State of Vermont foresters, volunteers, summer interns, middle school. high school, college, and university students.
- University of Vermont undergraduate class NR 206 completed and analyzed inventory in two municipalities and in one mobile home park.
- Gets people outside, looking at trees, talking to locals, and observing their communities for hundreds (and hundreds) of hours.

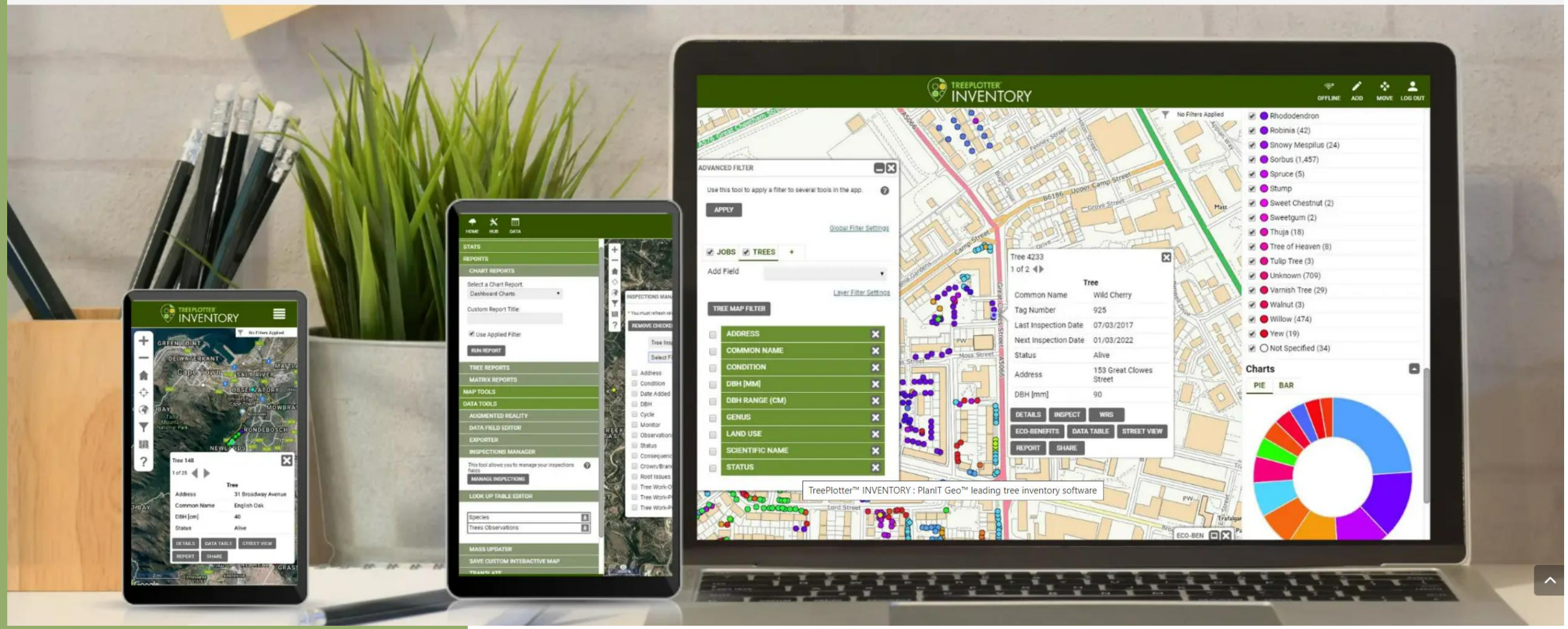


Digital data visible from…

- Addison County Community Trust (2022)
- Barre City (2015)
- Brandon (2021-2022)
- Brattleboro (2015)
- Bristol (2014)
- Burlington (2014)
- Charlotte (2016-2022)
- Chester (2016)
- Colchester (2015 – 2022)
- Essex (2014-2022)
- Hartford (2013-2017)
- Hinesburg (2015)
- Hyde Park (2017)
- Irasburg (2021)
- Johnson (2014)
- Lyndon (2015-2022)
- Middlebury (2014-2016)
- Milton (2015)
- Montpelier (2018)
- Mount Holly (2021-2022)
- Newport City (2016)
- Northfield (2014)
- Old Stone House Museum (2021-2022)
- Plainfield (2015)
- Randolph (2016-2022)
- Rochester (2022)
- Rockingham (2015-2018)
- Shelburne (2014-2017)
- Shrewsbury (2021-2022)
- South Burlington (2015-2018)
- Springfield (2015)
- St. Albans City (2015)
- St. Albans Town (2015)
- Stowe (2016)
- Swanton (2014)
- Thetford (2018)
- Vergennes (2014)
- Waterbury (2016)
- Windsor (2016 – 2022)
- Winooski (2017-2020)

PlanITGeo

Who We Serve | TreePlotter™ Software | Services | Resource Library | About Us | Free Consultation



TreeKeeper

Tree Benefits

Overall Benefits

25,078 total trees

0 Selected Sites

Total Yearly Eco Benefits

$2,766,823.07

Greenhouse Gas Benefits
$19,820.60
3,863,036.11 lbs CO_2 avoided
2,805,309.34 lbs CO_2 sequestered

Water Benefits
$188,048.93
23,506,116.44 gallons saved

Energy Benefits
$1,056,585.97
1,591,786.42 kWh saved
592,028.90 Therms saved

Air Quality Benefits
$154,569.62
25,330.11 lbs pollutants saved

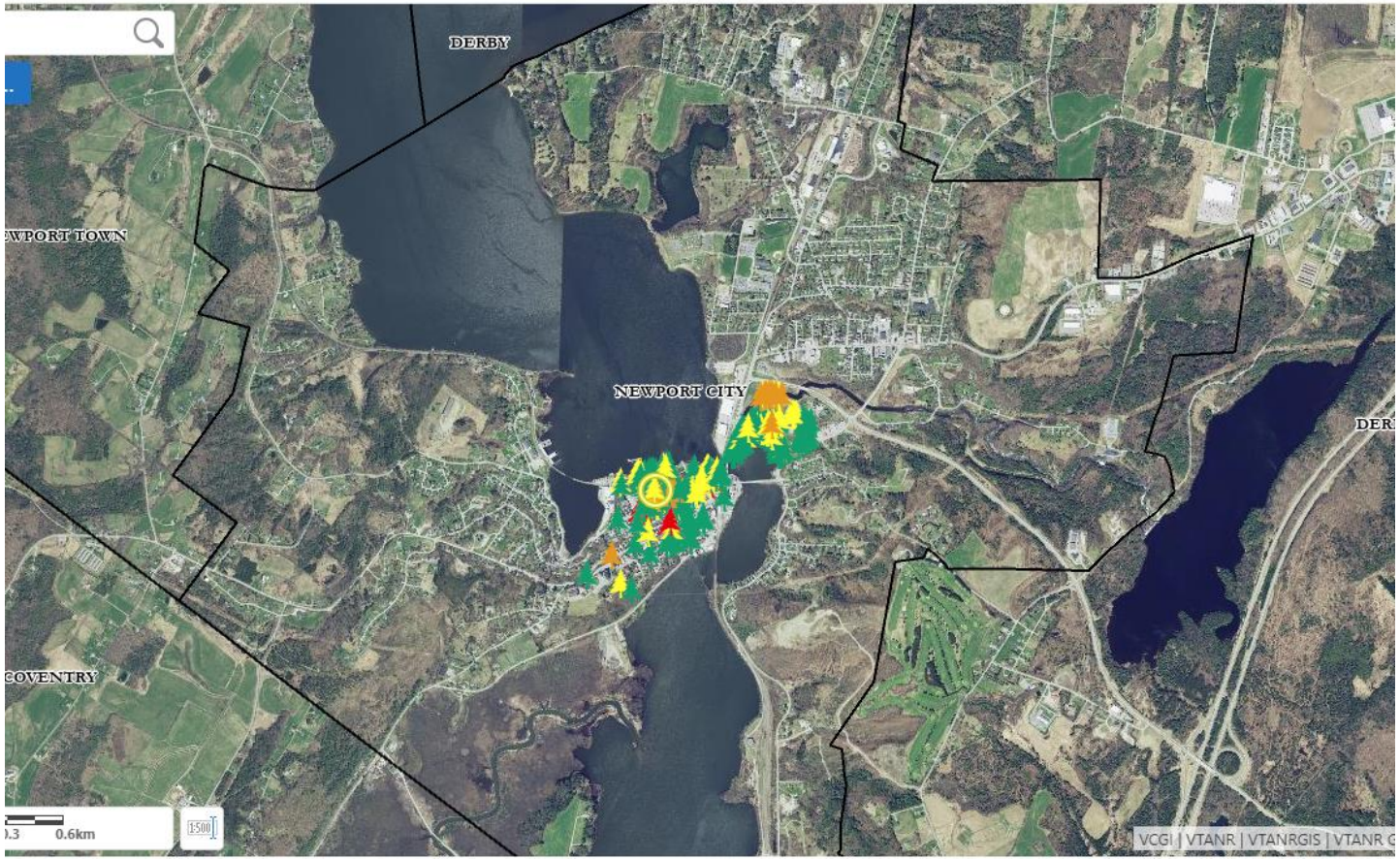
Property Benefits
$1,347,797.96
2,240,014.10 leaf surface area (sq.ft.)

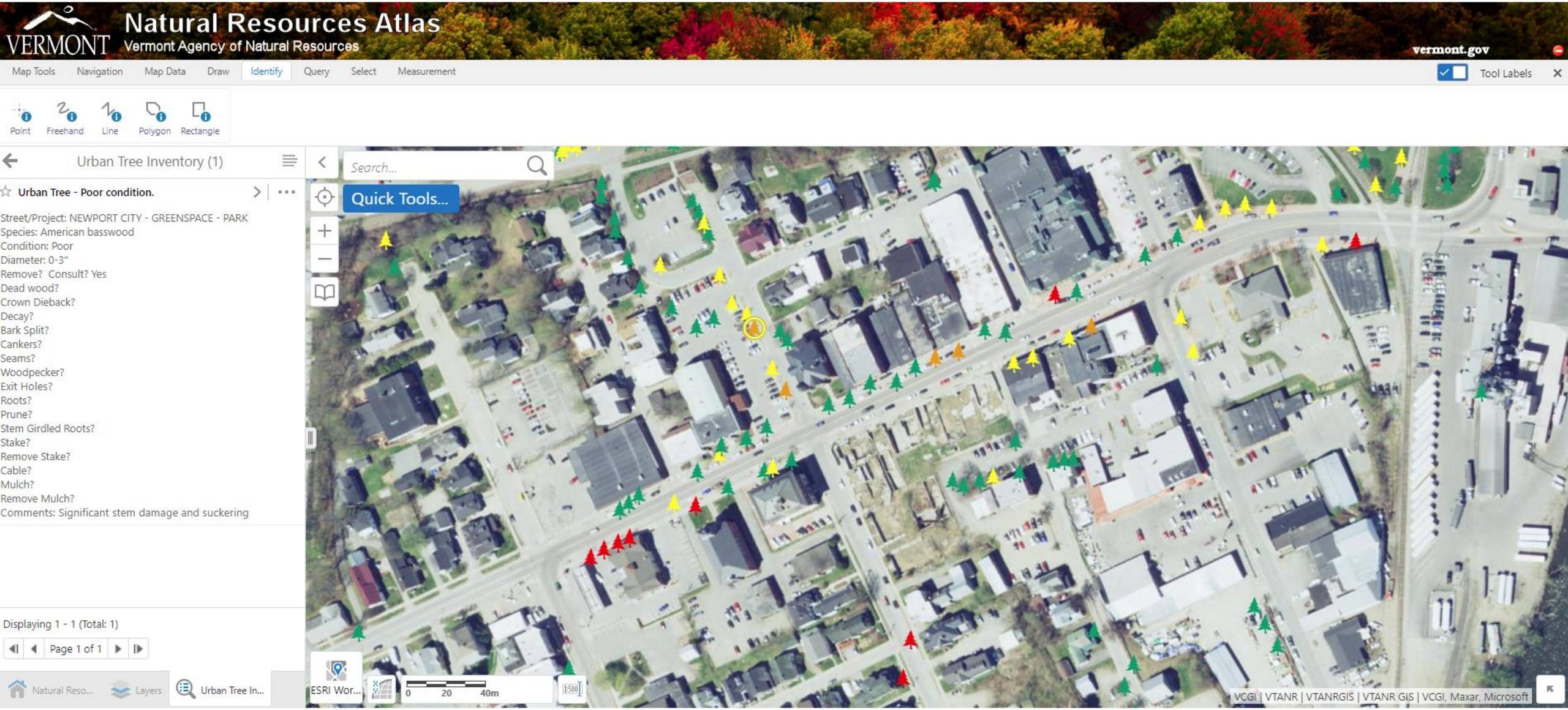
Historic Street Tree Benefits

Historic Park Trees Benefits

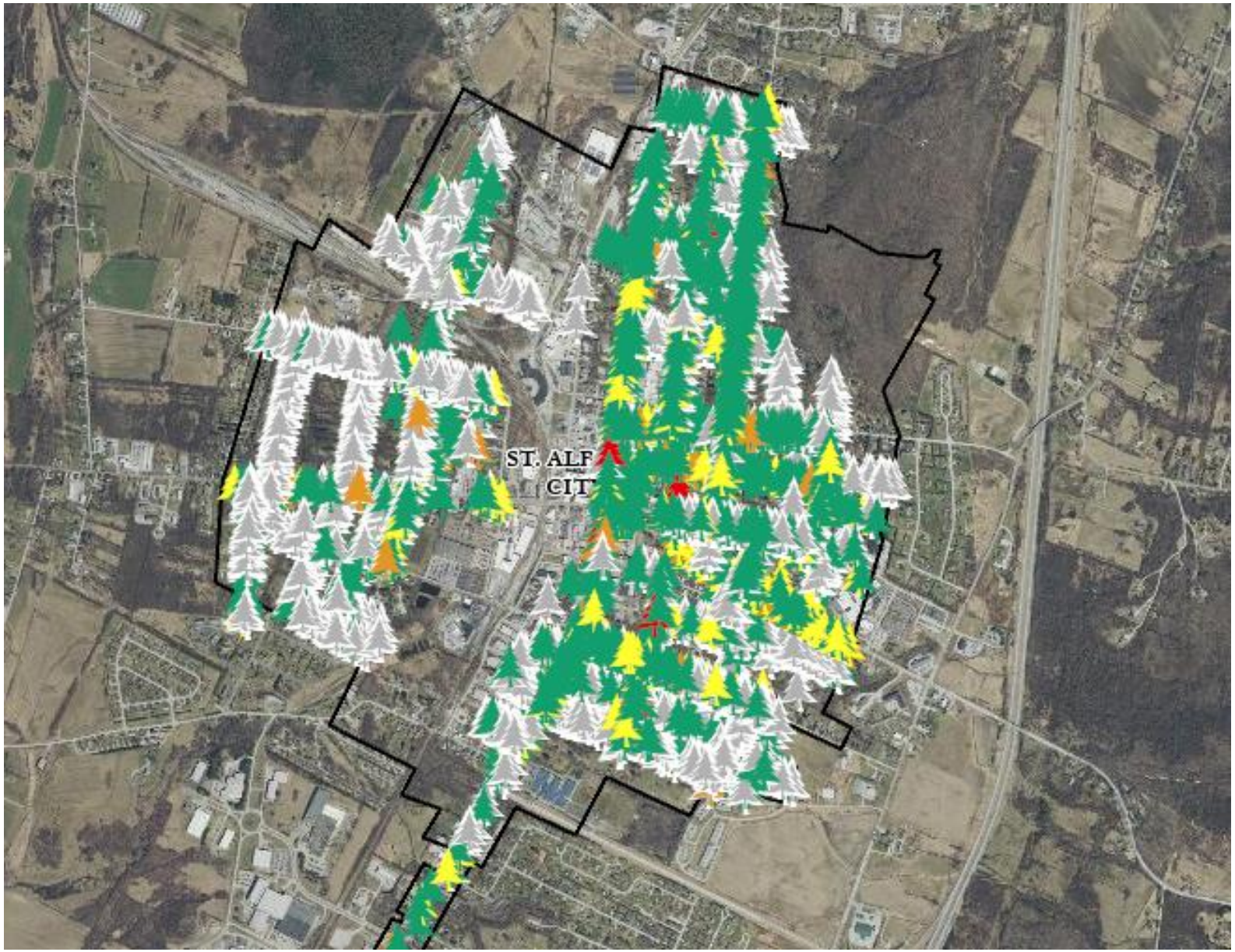
Tree Benefits

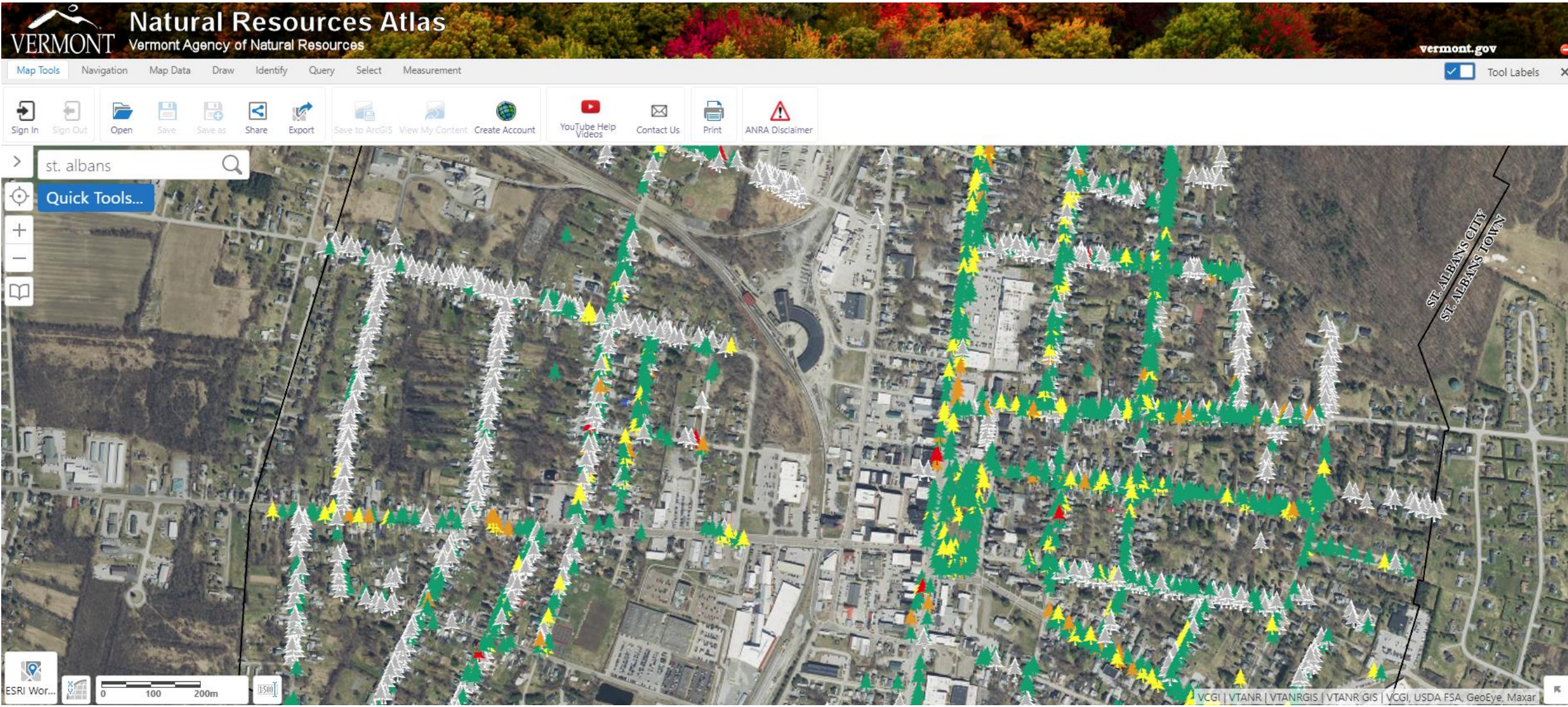
NEWPORT CITY



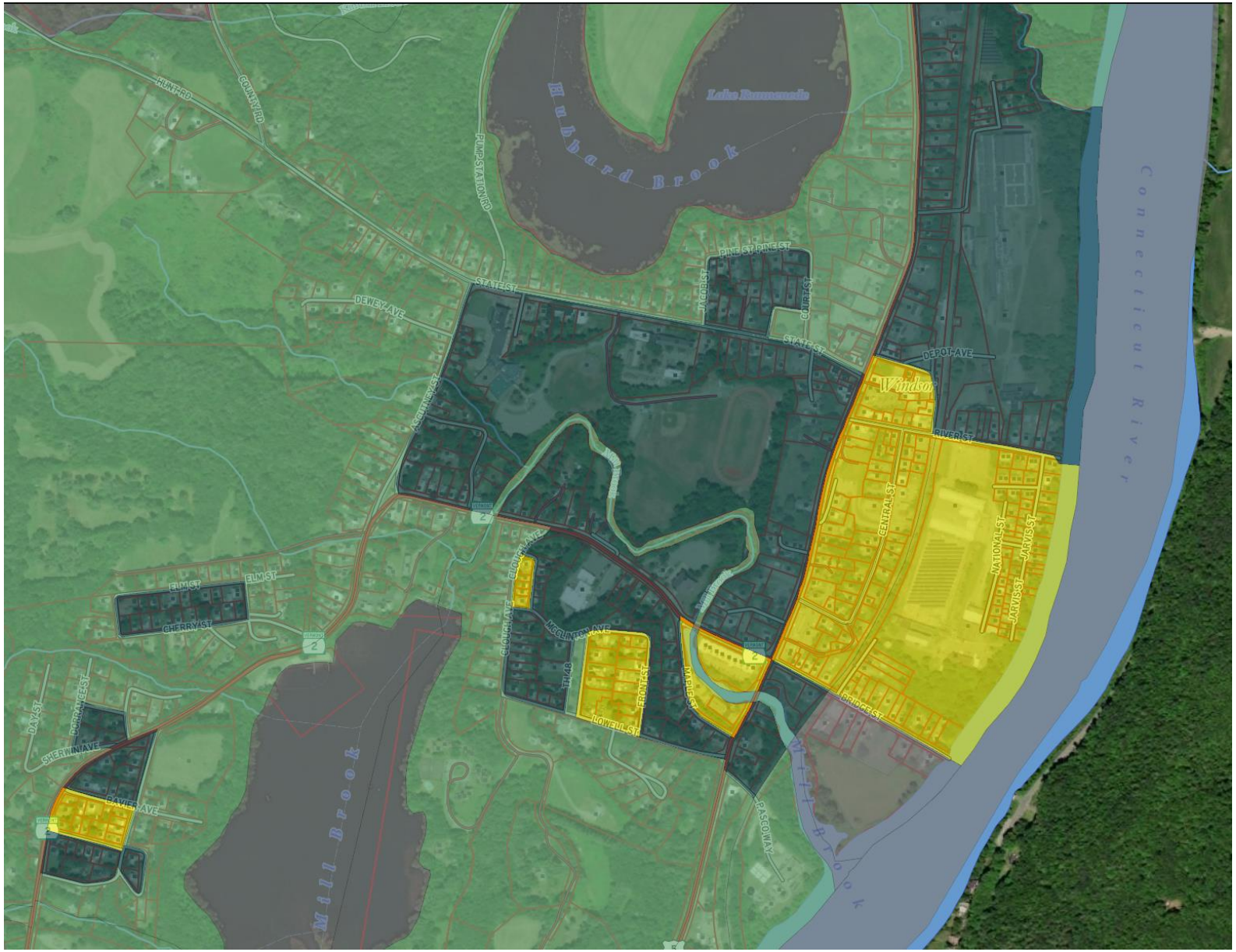

VERMONT
Natural Resources Atlas
Vermont Agency of Natural Resources
vermont.gov
Map Tools
Navigation
Map Data
Draw
Identify
Query
Select
Measurement
Tool Labels
Point
Freehand
Line
Polygon
Rectangle
Urban Tree Inventory (1)
Urban Tree - Poor condition.
Street/Project: NEWPORT CITY - GREENSPACE - PARK
Species: American basswood
Condition: Poor
Diameter: 0-3"
Remove? Consult? Yes
Dead wood?
Crown Dieback?
Decay?
Bark Split?
Cankers?
Seams?
Woodpecker?
Exit Holes?
Roots?
Prune?
Stem Girdled Roots?
Stake?
Remove Stake?
Cable?
Mulch?
Remove Mulch?
Comments: Significant stem damage and suckering
Displaying 1 - 1 (Total: 1)
Page 1 of 1
Natural Reso...
Layers
Urban Tree In...
Search...
Quick Tools...
ESRI Wor...
0
20
40m
VCGI | VTANR | VTANRGIS | VTANR GIS | VCGI, Maxar, Microsoft

ST. ALBANS CITY




VERMONT
Natural Resources Atlas
Vermont Agency of Natural Resources
vermont.gov
Map Tools
Navigation
Map Data
Draw
Identify
Query
Select
Measurement
Tool Labels
Sign In
Sign Out
Open
Save
Save as
Share
Export
Save to ArcGIS
View My Content
Create Account
YouTube Help Videos
Contact Us
Print
ANRA Disclaimer
st. albans
Quick Tools...
ST. ALBANS CITY
ST. ALBANS TOWN
ESRI Wor...
0
100
200m
1:500
VCGI | VTANR | VTANRGIS | VTANR GIS | VCGI, USDA FSA, GeoEye, Maxar

TOWN OF WINDSOR



TOWN OF WINDSOR

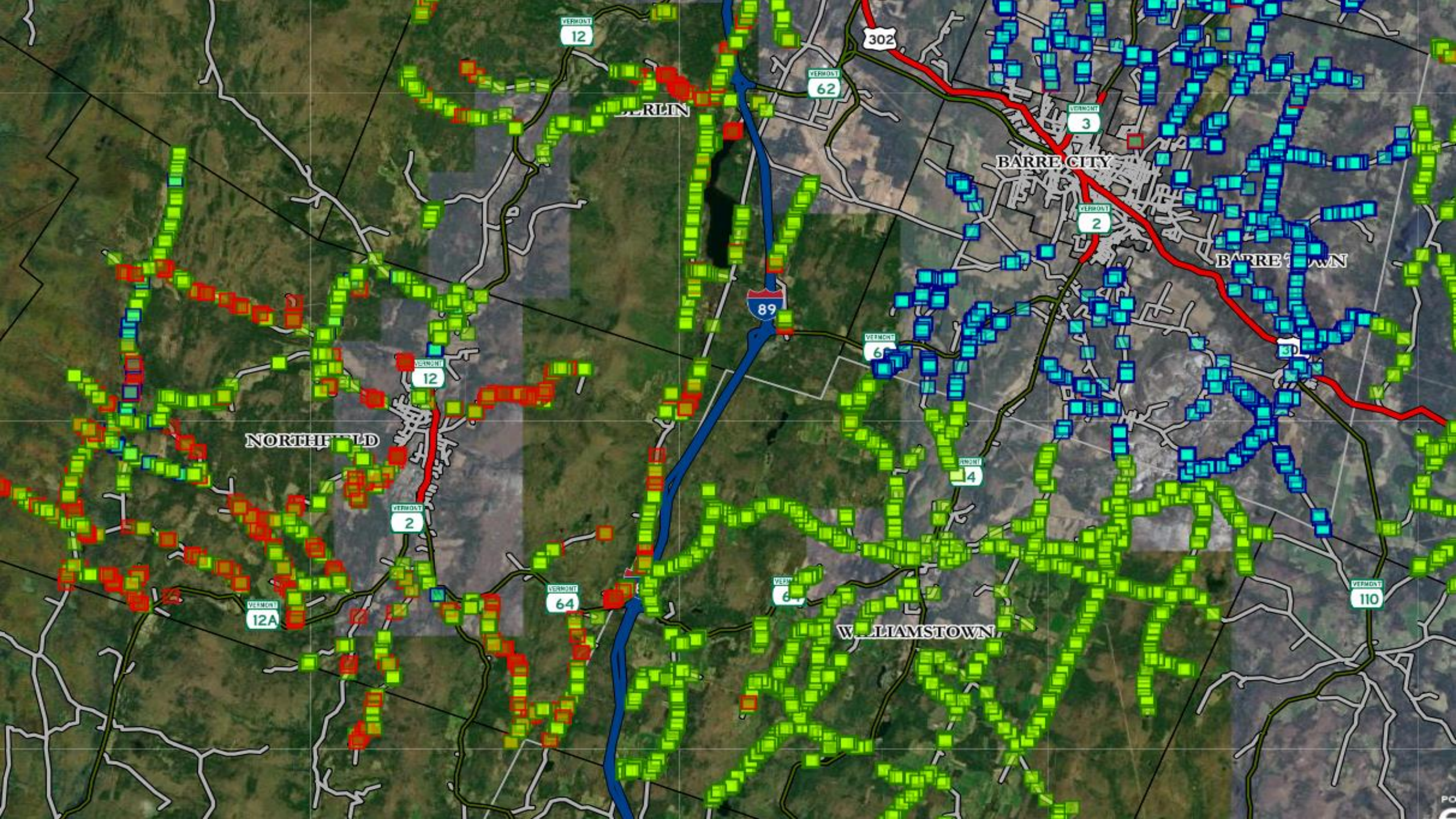
VILLAGE OF LYNDONVILLE

Municipal Tree Inventory

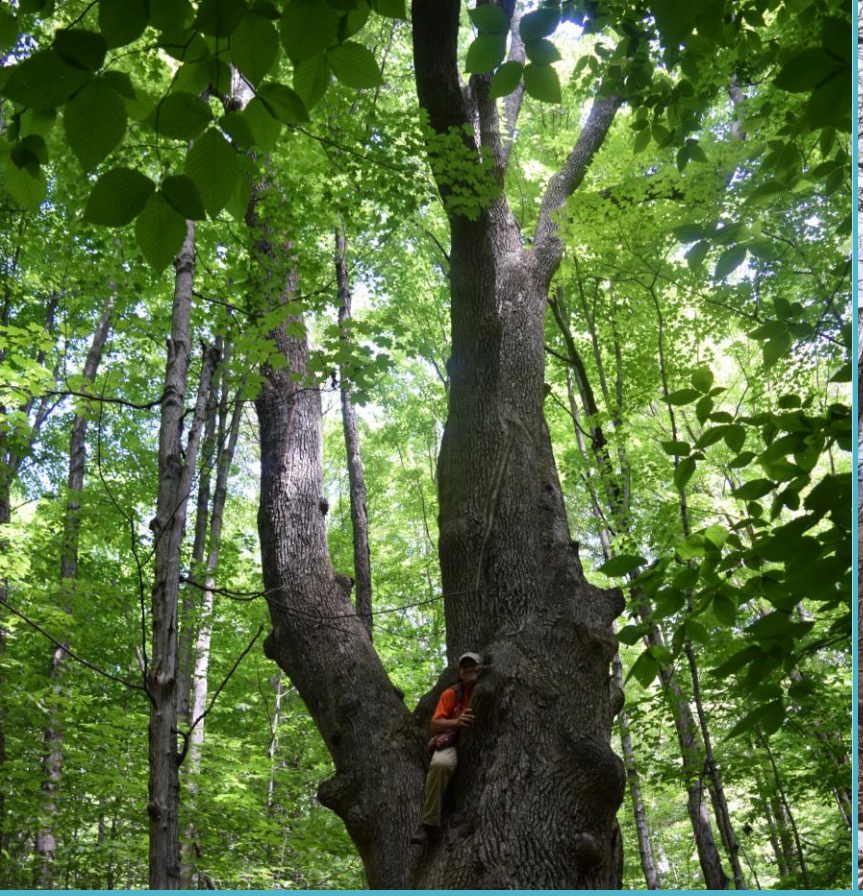
For more information, visit
vtcommunityforestry.org
joanne.garton@vermont.gov

Technical Assistance: Public & Ash Tree Inventories

30+ downtowns, 50+ rural roadside ash inventories (76,000+ ash) using Field Maps (Collector)



VERMONT 12
302
VERMONT 62
BERLIN
VERMONT 3
BARRE CITY
VERMONT 2
BARRE TOWN
89
VERMONT 12
NORTHFIELD
VERMONT 2
VERMONT 12A
VERMONT 64
WILLIAMSTOWN
VERMONT 110



Education & Outreach: Vermont Big Trees

2022 relaunch of program that had been largely dormant for a decade, interactive map and database

Vermont Big Trees

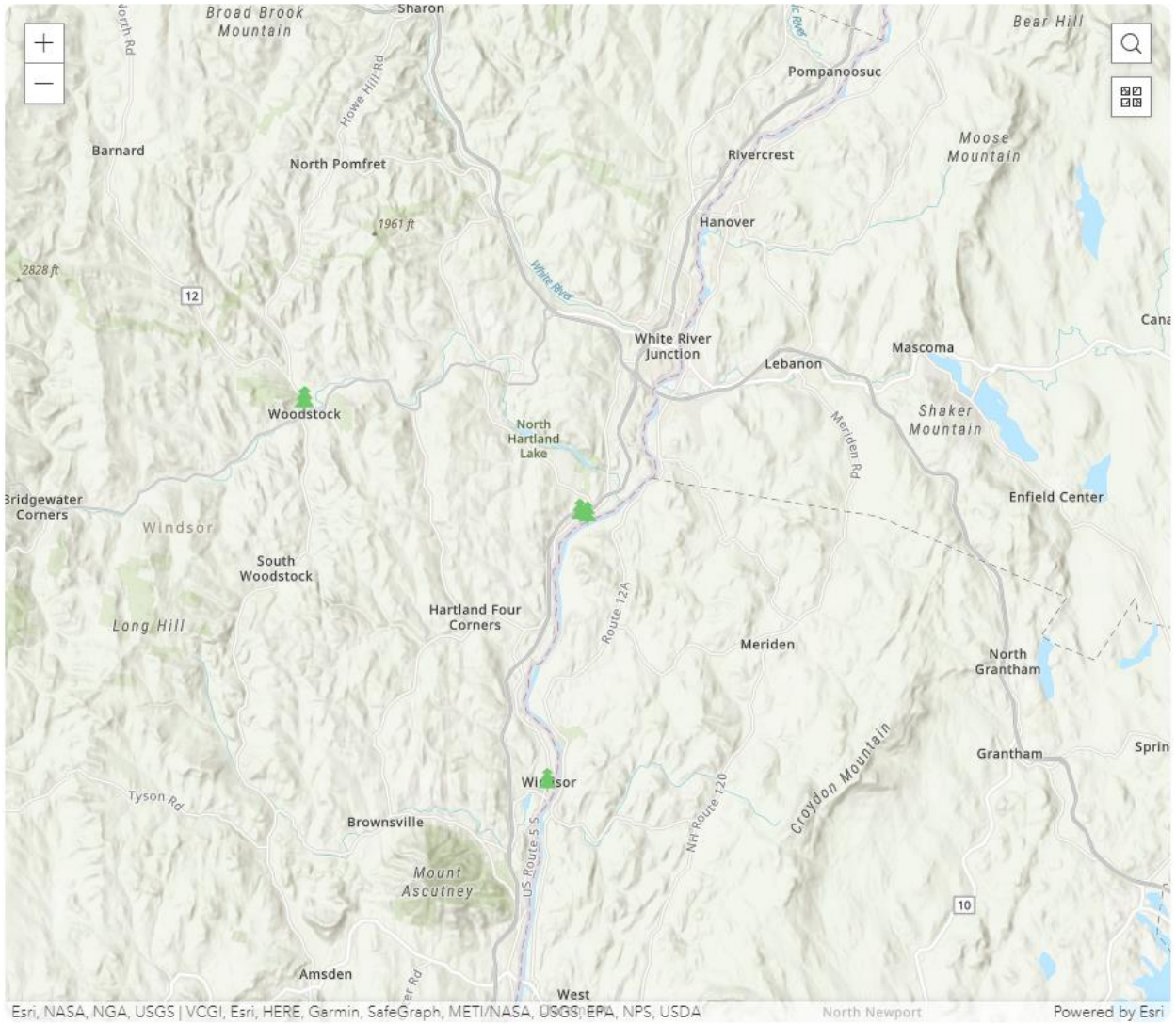
Map | Table | FAQ | Nominate

Search | Sort: Name

Black Locust

Black Walnut

Bur Oak



Black Walnut

Juglans nigra

Hartland
Windsor County

No Public Access, but tree is visible.
12 Green Acres Lane

Measurements

Circumference	218in
Height	97ft
Crown Spread	108ft
Big Tree Points	342.00

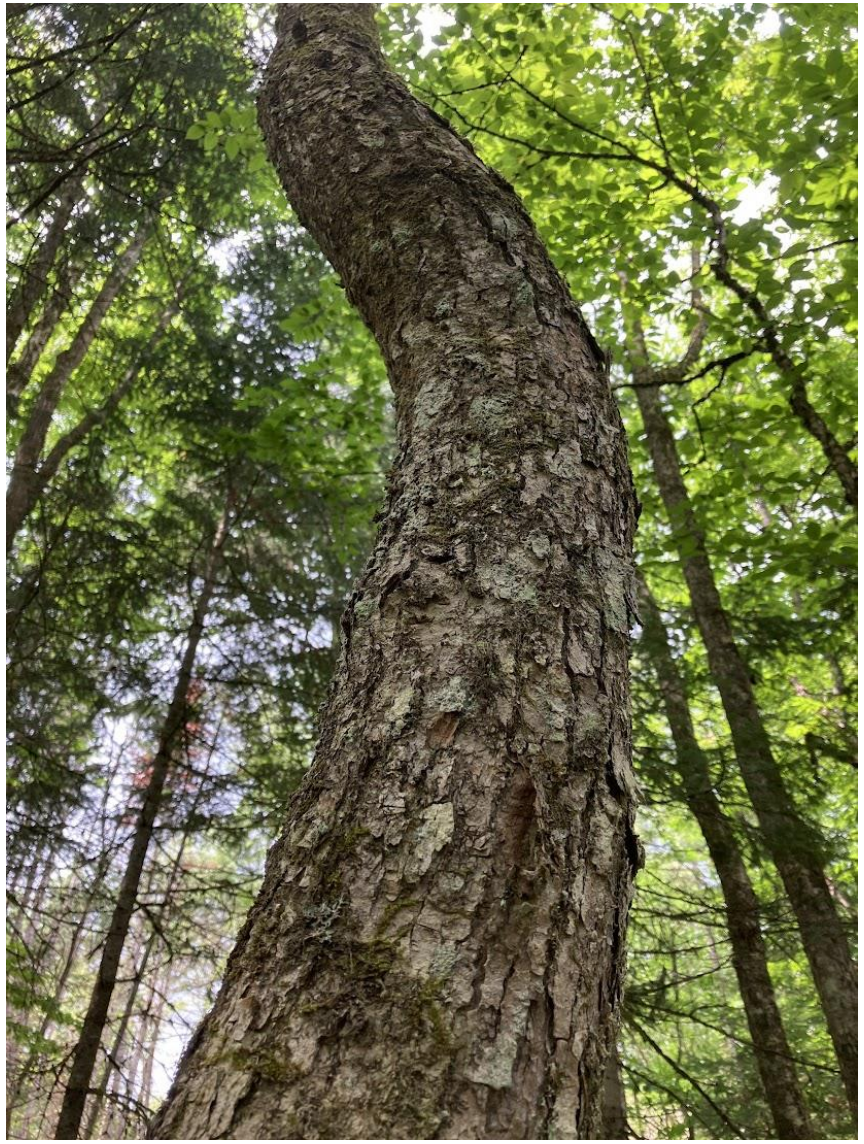
Year Listed: 2003
Last Measured: October 23, 2021

Technical Assistance: Black Ash Project

UVM Field Naturalist graduate student Charlotte Cadow
Expected graduation May 2023

Community Science

Connecting landowners and basket makers



Stats

Totals

307
Observations »

1
Species »

13
People »

Most Observations

charlie
248 observations

charlottecadow
28 observations

wendelyns
6 observations

tsn
6 observations

erikamitchell
6 observations

Most Species

trscavo
1 species

tsn
1 species

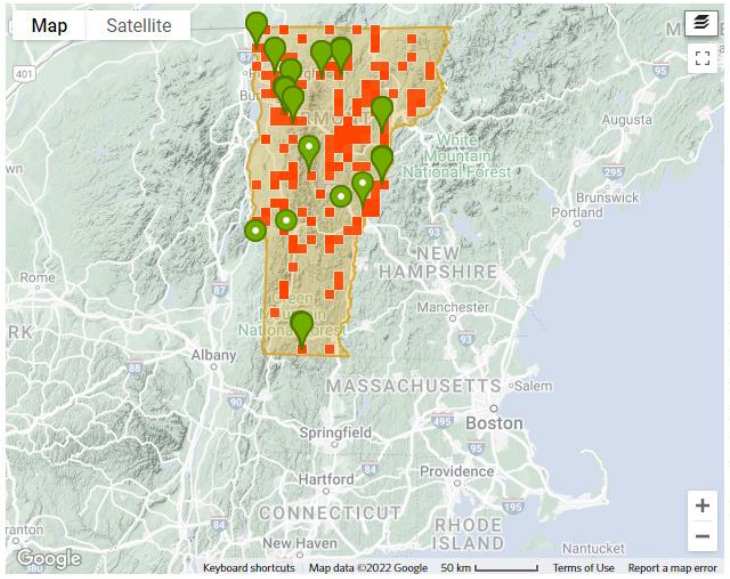
sdz456
1 species

erikamitchell
1 species

charlie
1 species

Most Observed Species

Black Ash
307 observations



» Members 11 members

View All Members »

» Export Observations

Atom / CSV

About

Black ash trees are a cultural centerpiece for many native people in northeastern North America, including the Abenaki. Basket-tree harvesters identify and fell the trees, having been trained to identify the specific tree attributes that indicate basket quality black ash. The trees are then processed into splints which can be used for basketry, or a variety of other ...more ↓

charlottecadow *created this project on May 19, 2022*

Embed a widget for this project on your website

Recent observations View All »

Grid List