

CITY OF  
BEATRICE  
STREET TREE  
INVENTORY  
ASSESSMENT  
REPORT



# Beatrice Tree Inventory City Right-of-Way

JEO PROJECT NUMBER: 242242.00

April 2026



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## INTRODUCTION

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### Location

All city right-of-way trees located throughout the City of Beatrice, Nebraska.



### Background

JEO Consulting Group, Inc. (JEO) was retained by the City of Beatrice to conduct a street tree inventory and assessment report for all City right-of-way trees in Beatrice, Nebraska (study area). This document summarizes the findings of the street tree inventory completed in March of 2026. JEO conducted a tree inventory that included 100% of the city-owned trees along the city streets.

## STREET TREE INVENTORY

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### General Overview

JEO recently completed a detailed tree inventory and urban forestry management plan for the City of Beatrice, documenting all trees on City property using GPS and GIS tools to assess species, condition, and risk. The project provides data-driven guidance for maintenance, hazard reduction, and long-term canopy management. JEO's certified arborists also prepared a tailored plan with pruning and management needs for tree removal and planting. JEO additionally completed an additional inventory on City right-of-way trees.

### DATA COLLECTION

Each City owned street tree received comprehensive documentation to ensure accurate and detailed records. The documentation included identifying species, collection of diameter at breast height (DBH), and precise GPS location along with observation of tree conditions to gauge health and structural integrity. The evaluation included risk assessments to identify any potential hazards posed by the tree, or surrounding impacts such as proximity to infrastructure or other environmental factors.

### TREE CONDITIONS

Maintenance suggestions and priorities are specific to each tree's specific needs based on its health condition and structural integrity. Maps (Figures. 2a-2e) included show trees that are of poor or dead/dying condition. These conditions are based on the condition of the wood and the foliage when inventory and assessment took place. Ninety-two trees were found to be in poor condition, while 21 trees were to be considered dead/dying. Overall health conditions for all trees inventoried for the City of Beatrice can be seen in Figure 7 & 8.

### TREE REMOVAL

Tree removal is recommended based on assessment of current risk, overall tree condition, and anticipated future performance within the condition and long-term management objectives. Some trees currently exhibit structural defects, signs of decline, or conditions that indicate a likelihood of increased risk over time. Proactive removal is considered a preferred management strategy to prevent the development of unacceptable risk levels and reduce the potential need for emergency response. Additionally, tree removal can support long-term canopy management goals, including improving species diversity, optimizing age distribution, and enhancing resilience to future environmental conditions. In this case, removals are coordinated with replanting efforts to maintain or enhance overall canopy cover and keep associated ecosystem benefits.

At the time of data collection, a total of 74 trees were recommended for removal: Maps (Figures. 1a-1e)

- 38 trees under 12” DBH
- 36 trees over 12” DBH

## Charts and Graphs

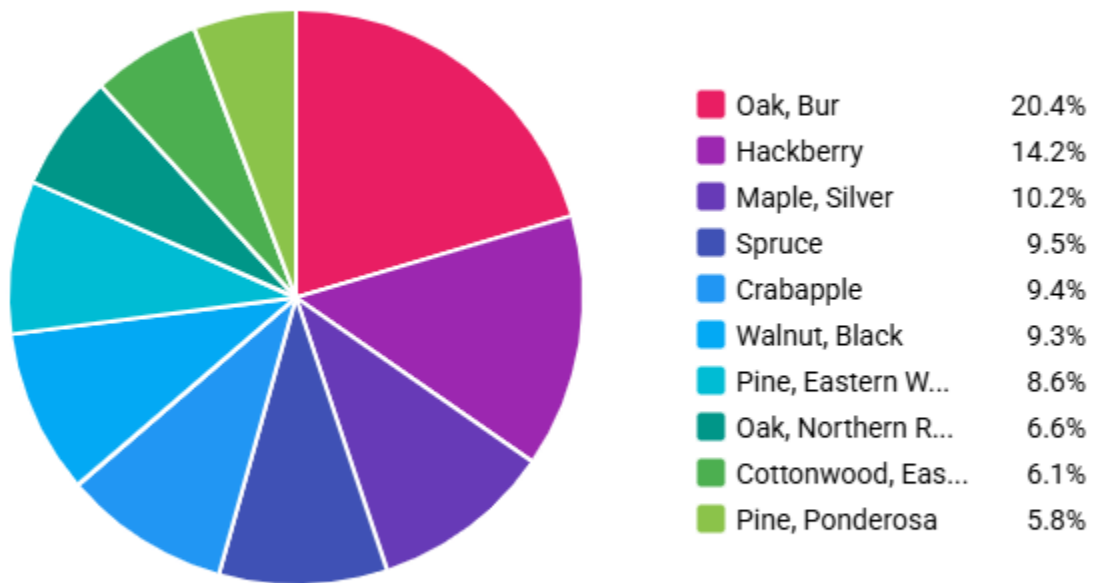
Collection of charts and graphs for all the City of Beatrice, including street and park trees.

### MOST COMMON SPECIES

Figure 1: Common Species Totals

Most Common Species - Top 10			Hide
COMMON NAME	COUNT	PERCENTAGE	
Oak, Bur	386	20.4%	
Hackberry	269	14.2%	
Maple, Silver	193	10.2%	
Spruce	179	9.5%	
Crabapple	177	9.4%	
Walnut, Black	175	9.3%	
Pine, Eastern White	163	8.6%	
Oak, Northern Red	124	6.6%	
Cottonwood, Eastern	115	6.1%	
Pine, Ponderosa	109	5.8%	

Figure 2: Common Species Graph

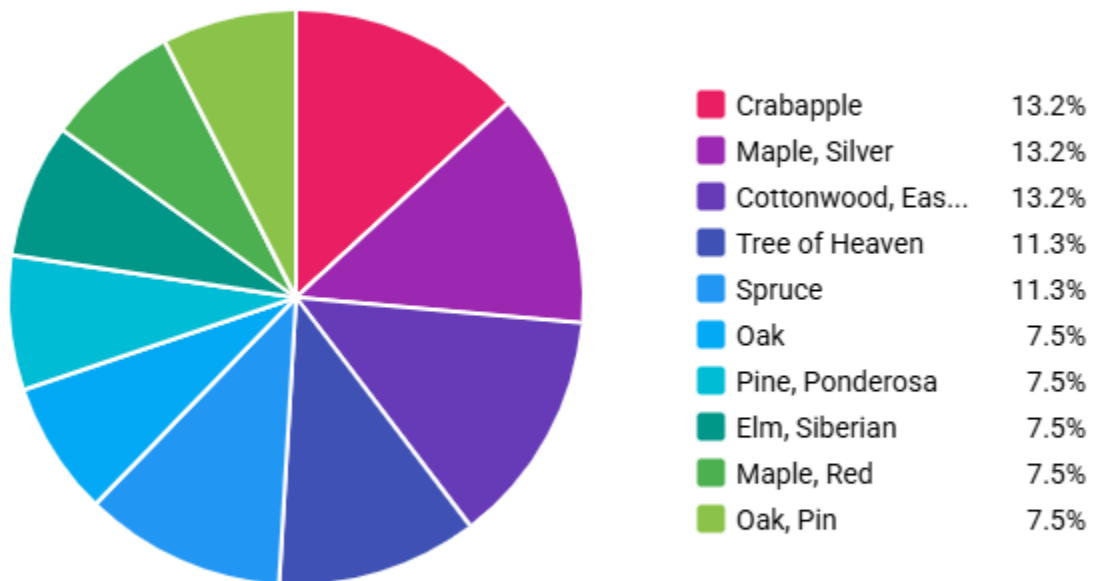


TREE MORTALITY

Figure 3: Species with Highest Mortality Table

Species with Most Mortality - Top 10			Hide
COMMON NAME	COUNT	PERCENTAGE	
Crabapple	7	13.2%	
Maple, Silver	7	13.2%	
Cottonwood, Eastern	7	13.2%	
Tree of Heaven	6	11.3%	
Spruce	6	11.3%	
Oak	4	7.5%	
Pine, Ponderosa	4	7.5%	
Elm, Siberian	4	7.5%	
Maple, Red	4	7.5%	
Oak, Pin	4	7.5%	

Figure 4: Species with Highest Mortality

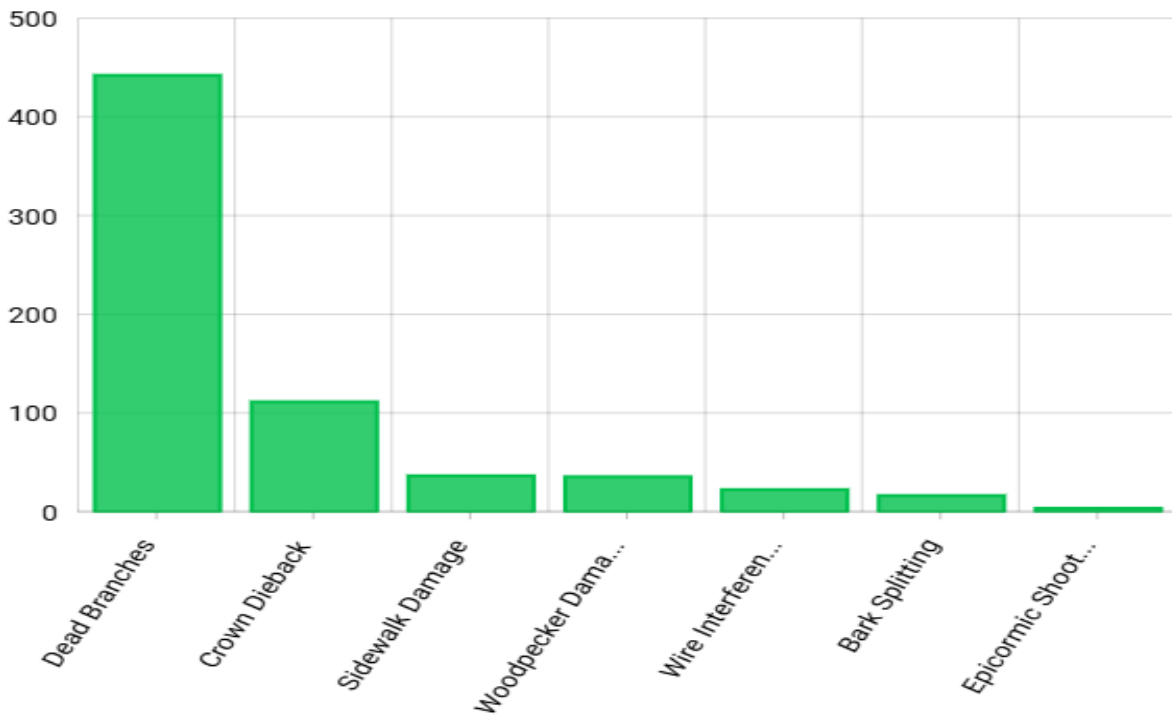


MAINTENANCE OBSERVATIONS

Figure 5: Maintenance Observations

Observations - Characteristics - Top 10			Hide
OBSERVATIONS	COUNT	PERCENTAGE	
Dead Branches	443	65.9%	
Crown Dieback	112	16.7%	
Sidewalk Damage	37	5.5%	
Woodpecker Damage	36	5.4%	
Wire Interference	23	3.4%	
Bark Splitting	17	2.5%	
Epicormic Shoots	4	0.6%	

Figure 6: Maintenance Observations Graph

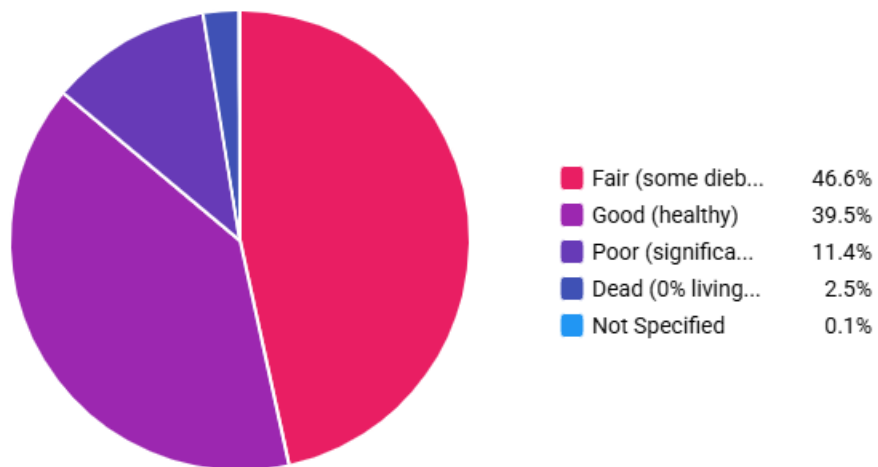


TREE CONDITION

Figure 7: Tree Condition Table

Trees by Condition			Hide
CONDITION	COUNT	PERCENTAGE	
Fair (some dieback)	1,573	46.6%	
Good (healthy)	1,333	39.5%	
Poor (significant dieback)	384	11.4%	
Dead (0% living)	85	2.5%	
Not Specified	2	0.1%	

Figure 8: Tree Condition Graph



## Appendix A: Figures

FIGURES 1A-1E: TREE REMOVALS

FIGURES 2A-2E: TREE CONDITION



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# Beatrice Tree Inventory

Figure 1a - Tree Removals  
 Beatrice, Nebraska

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## Beatrice Tree Inventory

Figure 1b - Tree Removals  
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## Beatrice Tree Inventory

Figure 1c - Tree Removals  
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# Beatrice Tree Inventory

Figure 1d - Tree Removals  
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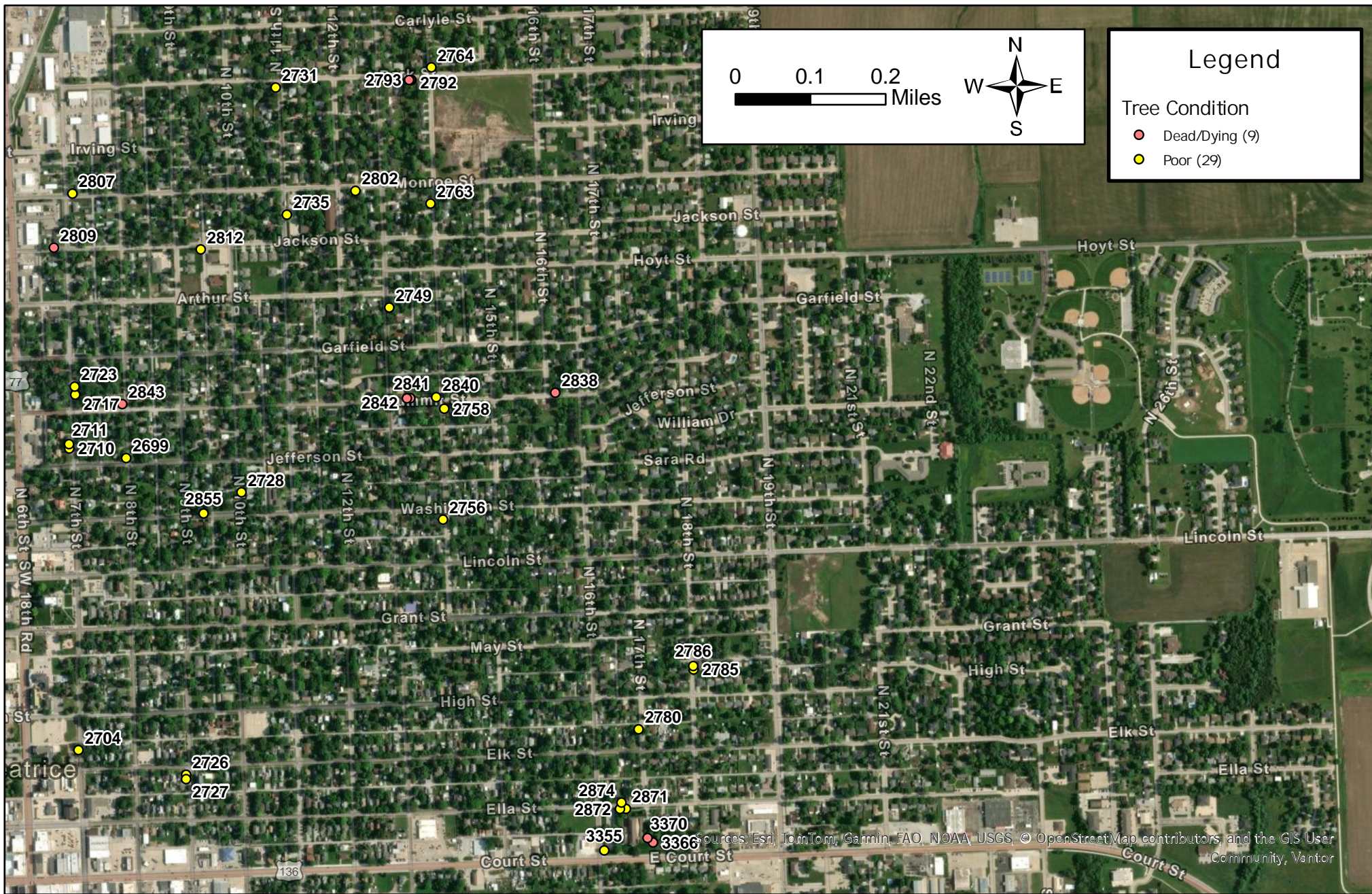
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## Beatrice Tree Inventory

Figure 2a - Tree Condition  
 Beatrice, Nebraska

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Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Figure 2c - Tree Condition  
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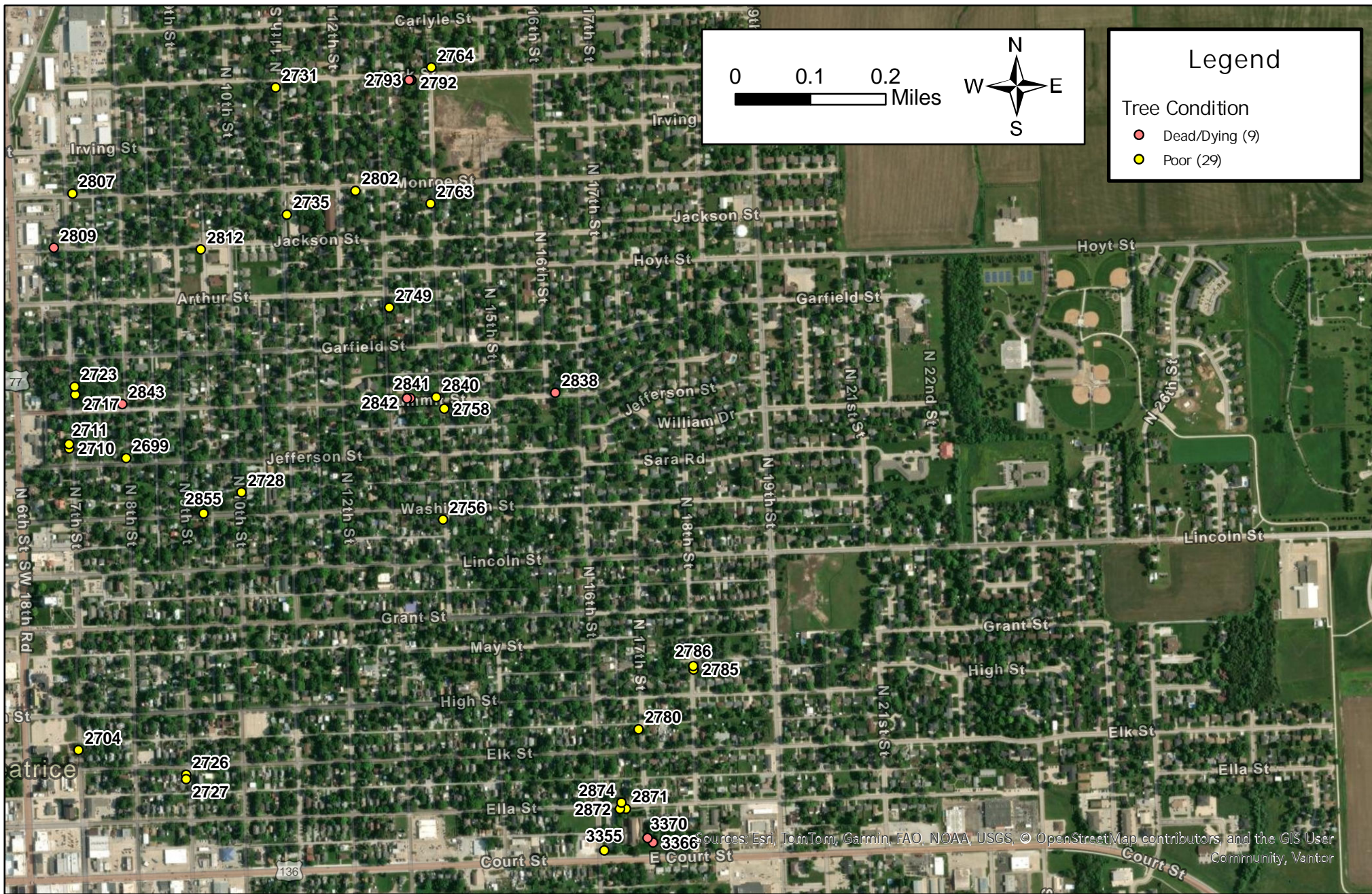
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**Legend**

Tree Condition

- Dead/Dying (6)
- Poor (10)

0 0.1 0.2 Miles

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