2012 COMMUNITY TREE MANAGEMENT PLAN

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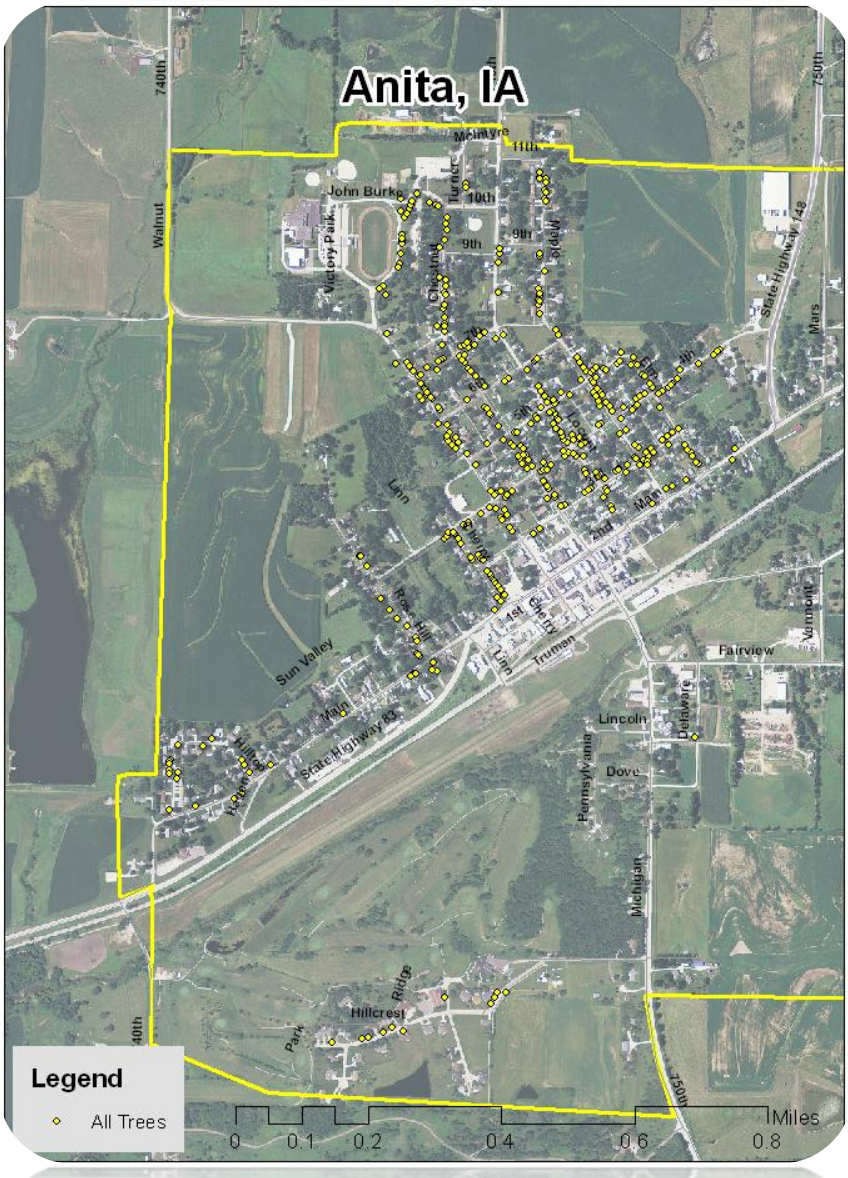

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Executive Summary

Overview

This plan was developed to assist the City of Anita with managing its urban forest, including budgeting and future planning. Trees can provide a multitude of benefits to the community, and sound management allows a community to best take advantage of these benefits. Management is especially important considering the serious threats posed by forest pests such as the emerald ash borer (EAB). EAB is an invasive insect imported from Eastern Asia on wood shipping crates that kills all species of ash trees (this does not include mountain ash). There is a strong possibility that 14% of Anita's city owned trees (ash) will die once EAB becomes established in the community. With proper planning and management, the costs of removing dead and dying trees can be extended over years, mitigating public safety issues.

Inventory and Results

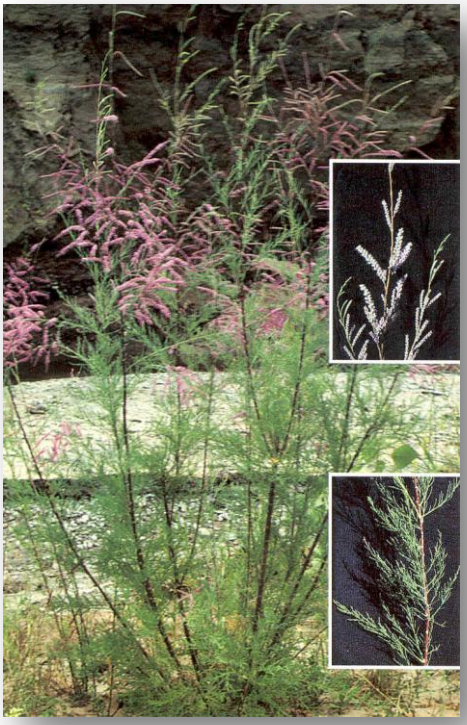
In 2012, a tree inventory was conducted using Global Positioning System (GPS) data collectors. The inventory was a complete inventory of street right of way trees. Below are some key findings of the 403 trees inventoried.

- Anita's trees provide $77,986 of benefits annually, an average of $194 a tree
- There are over 37 species of trees
- The top three genus are: Maple 39%, Ash 14%, and Apple 9%
- 10% of trees are in need of some type of management
- 12 trees are recommended for removal

Recommendations

The core recommendations are detailed in the Recommendations Section. The Emerald Ash Borer Plan includes management recommendations as well. Below are some key recommendations.

- Of the 12 trees needing removal, 11 trees are over 18 inches in diameter at 4.5 ft and must be addressed immediately *City ownership of the trees recommended for removal should be verified prior to any removal*
- 1 of the 57 ash trees are in need of follow up because they are displaying signs and symptoms associated with EAB
- All trees should be pruned on a routine schedule- one third of the city every other year
- Salt cedar was noted to be growing in several yards. This is a highly invasive plant that should not be planted. Please consider removing such specimens in your community.



INVASIVE SALT CEDAR

Plant a diverse mix of trees that do not include: ash, maple,

cottonwood, poplar, box elder, Chinese or Siberian elm, elm, evergreen, willow, black walnut, tree of heaven, exotic mulberry trees (white mulberry is very common), and Bradford/Callery Pear. Please also be careful not to plant the following shrubs, as they are considered invasive species: autumn olive, honeysuckles, salt cedar, rhododendron, multiflora rose, buckthorn, Japanese Barberry, Burning Bush, and Oriental bittersweet (a vine). For additional information on invasive species and native alternatives, please read my article at: http://api.ning.com/files/upDJWQuP3By62jwQaDQ*HIqC08KqOZIIyknTyIMIfSpJ1cU3EKH*F7hmZYMBaDhDCj0jivi-px1jKSL8TEKs7YPG9gU*Y9EA/CHECKYOURYARDFORFUGITIVES.pdf.

- Check ash trees with a visual survey yearly
- With a budget of $5,000-$6,000/year, it will take 10 years to remove ash if they were to fall victim to the Emerald Ash Borer. If the current tree removal budget is not this high, please consider budgeting to this level to accommodate potential EAB issues in the future.

Introduction

This plan was developed to assist Anita with the management, budgeting and future planning of their urban forest. Across the state, forestry budgets continue to decrease with more and more of that money spent on tree removal. With the anticipated arrival of Emerald Ash Borer (EAB), an invasive pest that kills native ash trees, it is time to prepare for the increased costs of tree removal and replacement planting. With proper planning and management of the current canopy in Anita, these costs can be extended over years and public safety issues from dead and dying ash trees mitigated.

Trees are an important component of Anita's infrastructure and one of the greatest assets to the community. The benefits of trees are immense. Trees provide the community with improved air quality, stormwater runoff interception, energy conservation, lower traffic speeds, increased property values, reduced crime, improved mental health and create a desirable place to live, to name just a few benefits. It is essential that these benefits be maintained for the people of Anita and future generations through good urban forestry management.

Good urban forestry management involves setting goals and developing management strategies to achieve these goals. An essential part of developing management strategies is a comprehensive public tree inventory. The inventory supplies information that will be used for maintenance, removal schedules, tree planting and budgeting. Basing actions on this information will help meet Anita's urban forestry goals.

Inventory

In 2012, a tree inventory was conducted that included 100% of the city owned street right of way trees. The tree data was collected using a handheld Global Positioning System (GPS) receiver. The data collector gives Geographic Information Systems (GIS) coordinates with an

accuracy of 3 meters, which can be used in Arc GIS as an active GIS data layer. Because the inventory is a digital document the data can be updated with new information and become a working document.

The programming used to collect tree information on the data collectors was written to be compatible with a state-of-the-art software suite called i-Tree. i-Tree was developed by the USDA Forest Service to quantify the structure of community trees and the environmental services that trees provide. The i-Tree suite is a public domain which can be accessed for free.

To quantify the urban forest structure and benefits, specific data is collected for each tree. This data includes: location, land use, species, diameter at 4.5 ft, recommended maintenance, priority of that maintenance, leaf health, and wood condition. Additionally, signs and symptoms of EAB were noted for all ash trees. The signs and symptoms noted were canopy dieback, epicormic shoots, bark splitting, D-shaped borer exit holes, and wood pecker damage.

Inventory Results

The data collected for the 403 city trees was entered into the USDA Forest service program Street Tree Resource Analysis Tool for Urban forestry Management (STRATUM), part of the i-Tree suite. The following are results from the i-Tree STRATUM analysis. Findings

Annual Benefits

Annual Energy Benefits

Trees conserve energy by shading buildings and blocking winds. Anita's trees reduce energy related costs by approximately $20,488 annually (Appendix A, Table 1). These savings are both in Electricity (96.9 MWh) and in Natural Gas (13,404.4 Therms).

Annual Stormwater Benefits

Anita's trees intercept about 1,056,992 gallons of rainfall or snow melt a year (Appendix A, Table 2). This interception provides $28,646 of benefits to the city.

Annual Air Quality Benefits

Air quality is a persistent public health issue in Iowa. The urban forest improves air quality by removing pollutants, lowering air temperature, and reducing energy consumption, which in turn reduces emissions from power plants, and emitting volatile organic mater (ozone). In Anita, it is estimated that trees remove 1,235lbs of air pollution (ozone (O_3), particulate matter less than 10 microns (PM10), carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2)) per year with a net value of $3,466 (Appendix A, Table 3).

Annual Carbon Benefits

Carbon sequestration and storage reduce the amount of carbon in the atmosphere, mitigating climate change. In Anita, trees sequester about 249,027 lbs of carbon a year with an associated

value of $1,868 (Appendix A, Table 4). In addition, the trees store 3,636,585 lbs of carbon, with a yearly benefit of $27,274 (Appendix A, Table 5).

Annual Aesthetics Benefits

Social benefits of trees are hard to capture. The analysis does have a calculation for this area that includes: aesthetic value, property values, lowered rates of mental illness and crime, city livability and much more. Anita receives $22,430 in annual social benefits from trees (Appendix A, Table 6).

Financial Summary of all Benefits

According to the USDA Forest Service i-Tree STRATUM analysis, Anita's trees provide $77,986 of benefits annually. Benefits of individual trees vary based on size, species, health and location, but on average each of the 403 trees in Anita provide approximately $194 annually (Appendix A, Table 7).

Forest Structure

Species Distribution

Anita has over 37 different tree species along city streets and parks (Appendix A, Figure 1). The distribution of trees by genus is as follows:

GENUS	TOTAL	PERCENTAGE OF CANOPY COVER
MAPLE	155	38.46%
ASH	57	14.14%
APPLE	38	9.43%
WALNUT	23	5.71%
OAK	22	5.46%
SPRUCE	21	5.21%
HACKBERRY	18	4.47%
LINDEN/BASSWOOD	9	2.23%
ELM	9	2.23%
EVERGREEN	6	1.49%
REDBUD	6	1.49%
PEAR	6	1.49%
HONEYLOCUST	5	1.24%
SYCAMORE	5	1.24%
BROADLEAF DECIDUOUS	4	0.99%
MULBERRY	4	0.99%
PRUNUS (CHERRY/PLUM)	4	0.99%
BIRCH	2	0.50%
HICKORY	2	0.50%
JUNIPER	2	0.50%
WILLOW	2	0.50%
CATALPA	1	0.25%
MAGNOLIA	1	0.25%
PINE	1	0.25%
TOTAL	**403**	**100.00%**

Age Class

Most of Anita's trees (65.5%) are between 12 and 30 inches in diameter at 4.5 ft (Appendix A, Figure 2). For age, a Bell Curve is preferred and shows the highest amount of trees around 18

inches in diameter at 4.5 ft. Anita's size curve is slightly on the larger side, indicating a slightly older than average community forest.

Condition: Wood and Foliage

Both wood condition and leaf condition are good indicators of the overall health of the urban forest. The foliage condition results for Anita indicate that 47% of the trees are in good health, with only 3% of the foliage in poor health, dead or dying (Appendix A, Figure 3 & Appendix B, Figure 3). Similarly, 55% of Anita's trees are in good health for wood condition (appendix A, Figure 4 & Appendix B, Figure 3). Wood condition that is in poor health, dead or dying is about 10% of the population. This 10% is an estimate of trees that need management follow up.

Management Needs

The following outlines the specific management needs of the street and park trees by number of trees and percent of canopy (Appendix B, Figure 3).

Clean	94	23%
Remove	12	3%
Treat pest/disease	9	2%
Stake/train	7	2%
Raise	2	<1%
Reduce	1	<1%

The canopy cover of Anita is approximately 11 acres (Appendix A, Figure 4). According to the 2010 census, Anita occupies 1,088 acres. Thus the canopy cover on city land is about 1%.

Land Use and Location

The majority of Anita's city and park trees are in planting strips in single family residential neighborhoods (Appendix A, Figure 6 & Appendix A, Figure7). The following describes the land use and locations for the street and park trees.

Land Use	
Single family residential	89.8%
Park/vacant/other	8.4%
Small commercial	0.5%
Multifamily residential	1.2%

Location	
Planting strip	65.8%
Front yard	34%
Median	0.2%

Recommendations

Risk Management

Hazardous trees can be a significant threat to both people and property. Trees that are dead or dying, or that have large issues such as trunk cracks longer than 18 inches should be removed. Broken branches and branches that interfere with motorist's vision of pedestrians, vehicles, traffic signs and signals, etc should be removed.

Hazardous trees

Anita has 12 critical concern trees that need immediate removal. These trees can be seen on the Location of Trees with Recommended Maintenance map (Appendix B, Figure 4). It is recommended to start with the large diameter critical concern trees first. There are 11 trees over 18 inches in diameter at 4.5 ft that should be addressed immediately. Please refer to the maintenance plan at the end of this section. After all of the critical concern removal trees are addressed, there should be follow up on other critical concern and immediate mature tree tasks. There are a total of 27 trees with these needs.

PRIORITY TASK	# BY TASK UNDER CRITICAL CONCERN	# BY TASK UNDER MATURE TREE IMMEDIATE	# BY TASK UNDER MATURE TREE ROUTINE	# BY TASK UNDER YOUNG TREE IMMEDIATE	# BY TASK UNDER YOUNG TREE ROUTINE	NONE	TOTAL
NONE: For immediate and critical concern activities, this means the tree needs follow-up by an arborist, for routine activities this means to treat the trees via routine maintenance	7		233		38		**278**
STAKE/TRAIN			4		3		**7**
CLEAN	6	6	81		1		**94**
RAISE			2				**2**
REDUCE					1		**1**
REMOVE	12						**12**
TREAT PEST/DISEASE (For most this means address carpenter ant activity)	7	1	1				**9**
TOTAL	**32**	**7**	**321**	**0**	**43**		**403**

Poor tree species

After the removal of the critical concern trees, ash trees in poor health should be assessed for removal (Appendix B, Figure 3 & Appendix B, Figure 4). Of the 12 removals, 2 are ash trees. There are a total of 57 ash trees, and only 1 of those has signs and symptoms that have been

associated with EAB. In addition, there are 2 trees that are in poor health. *City ownership of the trees recommended for removal should be verified prior to any removal*

Pruning Cycle

Proper pruning can extend the life and good health of trees, as well as reduce public safety issues. In the Management Needs section of the Findings there are four main maintenance issues to be addressed: routine pruning, crown cleaning, crown raising, and crown reduction. Crown cleaning removes dead, diseased, and damaged limbs. Crown raising is the removal of lower branches that are 2 inches in diameter or larger in the case of providing clearance for pedestrians or vehicles. Crown reduction is removing individual limbs from structures or utility wires. It is recommended that all trees be pruned on a routine schedule every five to seven years. Please refer to the maintenance plan for further information.

Planting

Most of the planting over the next several years will replace the trees that are removed. It is recommended to plant 1.2 trees for every tree removed, since survival rates will not be 100%. Please refer to the maintenance plan at the end of this section. It is not essential that the new trees be planted in the same location of the trees being removed. However, maintaining the same number of trees helps ensure continuation of the benefits of the existing forest in Anita.

It is important to plant a diverse mix of species in the urban forest to maintain canopy health, since most insects and diseases target a genus (ash) or species (green ash) of trees. Current diversity recommendations advise that a genus (i.e. maple, oak) not make up more than 20% of the urban forest and a single species (i.e. silver maple, sugar maple, white oak, bur oak) not make up more than 10% of the total urban forest. Presently, the forest is heavily planted with Maple (39%) (Appendix A, Figure 1). Maples should not be planted until this percentage can be lowered. Also, ash trees have not been recommended since 2002, due to the threat of EAB. Other species to avoid because they are public nuisances include: cottonwood, poplar, box elder, Chinese elm, evergreen, willow or black walnut, as outlined in section 151.02 of the city ordinance (Appendix C). All trees planted must meet the restrictions in city ordinance 151.02 (Appendix C).

Recommended Species to plant in Western Iowa:

COMMON NAME	SCIENTIFIC NAME	CULTIVARS/SELECTIONS
LARGE SHADE TREES – Plant 35 feet apart and away from overhead power lines.		
Swamp White Oak	*Quercus bicolor*	
White Oak	*Quercus alba*	
Bur Oak	*Quercus macrocarpa*	
Red Oak	*Quercus rubra*	
Black Oak	*Quercus veluntina*	
Chinkapin Oak	*Quercus muehlenbergii*	
American Basswood (Linden)	*Tilia Americana*	Boulevard, Front Yard, Legend, Redmond
Thornless Honeylocust	*Gleditsia triacanthos var. inermis*	Shademaster, Skyline
American elm	*Ulmus Americana*	Independence, New harmony, Valley Forge
Cottonwood (seedless) - ***Not recommended for planting near any homes or structures	*Populous deltoides*	Siouxland

Sycamore	*Plantanus occidentalis*	
Gingko	*Gingko biloba*	Male only – Shangri-La, Princeton sentry, Emperor
Ohio Buckeye	*Aesculus hippocastanum*	
Yellowwood	*Cladrastis lutea*	
Kentucky coffeetree	*Gymnocladus diocius*	Expresso
Black Cherry	*Prunus serotina*	
Hackberry	*Celtis occidentalis*	Chicagoland, Prairie Pride, Windy City
LOW GROWING TREES (less than 30 feet tall) planted as close as 12 feet.		
Eastern redbud	*Cercis Canadensis*	
Thornless cockspur hawthorn or other native hawthorns	*Crataegus crusgalli var. inermis*	
Ironwood (hop hornbeam)	*Ostrya virginiana*	
American hornbeam	*Carpinus caroliniana*	
Serviceberry	*Amalanchier arborea*	Autumn brilliance, Cumulus, Princess Diana
Flowering crabapple	*Malus*	Prairiefire, Adams, Sentinel, Snowdrift
Red mulberry	*Morus rubra*	
American (wild) plum	*Prunus americana*	
EVERGREEN TREES – planted 25 feet apart and away from overhead power lines.		
Eastern White Pine	*Pinus strobes*	
Jack pine	*Pinus banksiana*	
Junipers (Eastern red cedar)	*Juniperus virginiana*	
Norway spruce	*Picea abies*	
Concolor fir	*Abies concolor*	
Bald cypress	*Taxodium distichum*	
Arborvitae (Northern White cedar)	*Thuja occidentalis*	Techny, Brandon, Holmstrup

Continual Monitoring

Due to the threat of EAB, it is important to continuously check the health of ash trees. It is recommended that ash trees be checked with a visual survey every year for tree death and for the following signs and symptoms: canopy dieback, epicormic shoots, bark splitting, D-shaped borer exit holes, and wood pecker damage.

Emerald Ash Borer Plan

Ash Tree Removal

Tree removal will be prioritized with dead, dying, hazardous trees to be removed first (Appendix B, Figure 4). Next will be all ash in poor condition and displaying signs and symptoms

of EAB (Appendix B, Figure 2 & Appendix B, Figure 3). *City ownership of the tree recommended for removal should be verified prior to any removal*

EAB Quarantines

EAB is an extremely destructive plant pest and it is responsible for the death and decline of over 25 million ash trees. Ash in both forested and urban settings constitute a significant portion of the canopy cover in the United States. Current tools to detect, control, suppress and eradicate this pest are not as robust as the USDA would desire. In order to stay ahead of this hard to detect beetle, the USDA is attempting to contain the beetle before it spreads beyond its known positions by regulating articles.

A regulated article under the USDA's quarantine includes any of the following items:
- emerald ash borer
- firewood of all hardwood species (for example ash, oak, maple and hickory)
- nursery stock and green lumber of ash
- any other ash material, whether living, dead, cut or fallen, including logs, stumps, roots, branches, as well as composted and not composted chips of the genus ash (Mountain ash is not included)

In addition, any other article, product or means of conveyance not listed above may be designated as a regulated article if a USDA inspector determines that it presents a risk of spreading EAB once a quarantine is in effect for your county.

Wood Disposal

A very important aspect of planning is determining how wood infested with EAB will be handled, keeping in mind that quarantines will restrict its movement. Consider who will cut and haul the dead and dying trees? Is there an accessible, secured site big enough to store and sort the hundreds of trees and the associated brush and chips? How will wood be disposed of or utilized? Do you have equipment capable of handling the amount and size of ash trees your tree inventory has identified? Once your county is under quarantine for EAB, contact USDA-APHIS-PPQ at 515-251-4083 or visit the website http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/regulatory.shtml. Wood waste can be disposed of as you normally would if your county is not part of a quarantine.

Canopy Replacement

As budget permits, all removed ash trees will be replaced. All trees will meet the restrictions in city ordinance 151.02 (Appendix C). The new plantings will be a diverse mix and will not include ash, maple, cottonwood, poplar, box elder, Chinese elm, evergreen, willow or black walnut.

Postponed Work

While finances, staffing and equipment are focused on the management of ash, usual services may be delayed. Tree removal requests on genus other than ash will be prioritized by hazardous or emergency situations only.

Monitoring

It is recommended that ash trees be checked with a visual survey every year for tree death and for the following signs and symptoms: canopy dieback, epicormic shoots, bark splitting, D-shaped borer exit holes, and wood pecker damage.

Private Ash Trees

It is strongly recommended that private property owners start removing ash trees on their property upon arrival of EAB. City Code 151.06 states "If it is determined with reasonable certainty that any such condition exists (trees or shrubs in the City reported or suspected to be infected with or damaged by any disease or insect or disease pests) on private property and that the danger to other trees or to adjoining property or passing motorists or pedestrians is imminent, the Council shall notify by certified mail the owner, occupant or person in charge of such property to correct such condition by treatment or removal within fourteen (14) days of said notification. If such owner, occupant or person in charge of said property fails to comply within 14 days of receipt of notice, the Council may cause the condition to be corrected and the cost assessed against the property."

Budget and Maintenance Plan

YEAR	MAINTENANCE TASK	PRICE PER UNIT	SUBTOTAL	YEARLY EXPENDITURE
2013	CRTICIAL REMOVALS – REMOVE ALL CRITICAL CONCERN REMOVAL TREES (12 TOTAL). CONSIDER USING ALL OF BUDGET TO ADDRESS THESE TREES AS SOON AS POSSIBLE	$500/TREE X 12 TREES	$6,000	$6,000
	VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS			
2014	COMPLETE REMAINING CRITICAL CONCERN AND MATURE TREE IMMEDIATE TASKS (CHECK-UP OR LISTED AS NONE, CLEAN, AND TREAT PEST/DISEASE)	$75/TREE X 27	$2,025	~$5,000
	BUDGET FOR POTENTIAL ASH REMOVALS AND REPLACEMENTS		$3,000	
	VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS			
2015	COMPLETE ROUTINE CONTRACT TRIMMING AND CHECK-UPS ON 1/3 OF ANITA'S TREES (135)	$6.50 X 135	~$900	$5,000
	12 TREES WERE REMOVED X 1.2 REPLACEMENT FACTOR = 14 REPLACEMENT TREES ARE NEEDED. PLANT 14 REPLACEMENT TREES AND START ROUTINE YOUNG TREE MAINTENANCE.	14 X $100/TREE (PLANTING STOCK) 14 X $100/TREE (MAINTENANCE)	$2100	
	BUDGET FOR POTENTIAL ASH REMOVALS AND REPLACEMENTS		~$2,000	
	VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS			
2016	INSPECT AND BUDGET FOR POTENTIAL REMOVALS AND/OR HAZARD TREES		$1,000	$5,000

	BUDGET FOR POTENTIAL ASH REMOVALS AND REPLACEMENTS VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS		$4,000	
2017	COMPLETE ROUTINE CONTRACT TRIMMING AND CHECK-UPS ON 1/3 OF ANITA'S TREES (134) BUDGET FOR POTENTIAL ASH REMOVALS VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS	134 X $6.50	$871 $4100	$5,000
2018	EAB BUDGET SURVEY FOR PARK AND STREET HAZARD TREES VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS	$5,000	$5,000	$5,000
2019	COMPLETE ROUTINE CONTRACT TRIMMING AND CHECK-UPS ON 1/3 OF ANITA'S TREES (134) BUDGET FOR POTENTIAL ASH REMOVALS VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS	134 X $6.50	$871 $4100	$5,000
2020	EAB BUDGET SURVEY FOR PARK AND STREET HAZARD TREES VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS	$5,000		$5,000
2021-2022	EAB BUDGET VISUAL SURVEY FOR EAB SIGNS AND SYMPTOMS	$5,100 X 2		$10,200

BUDGET MAY NOT REFLECT ACTUAL REMOVAL AND REPLANTING VALUES, IF SERVICES ARE PERFORMED MORE AFFORDABLY BY YOUR CITY WORK CREWS. **THE EAB FIGURES WERE CALCULATED AS SUCH:**

55 POTENTIAL EAB ASH TREES X $500/TREE FOR REMOVAL = $27,500 IN REMOVALS
55 ASH REMOVALS X 1.2 REPLACEMENT FACTOR = 66 REPLACEMENTS
66 REPLACEMENTS X $150/TREE (TREE PLUS MAINTENANCE COSTS) = $9,900
TOTAL POTENTIAL EAB COSTS = $37,400

Proposed Budget Increase

EAB could potentially kill all ash trees in Anita within 4 years of its arrival. To remove all ash trees within 10 years, the budget would need to be maintained at $5,000/year. If the budget were increased to $10,000, the ash could be taken care of in half the time. Additionally, it is recommended that Anita apply for grants to fund replacement trees. Utility Company grants are usually between $500 and $10,000 for community-based, tree-planting projects that include parks, gateways, cemeteries, nature trails, libraries, nursing homes, and schools.

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Appendix A: i-Tree Data

Table 1: Annual Energy Benefits

Anita

Annual Energy Benefits of Public Trees by Species

1/11/2013

Species	Total Electricity (MWh)	Electricity ($)	Total Natural Gas (Therms)	Natural Gas ($)	Total ($)	Standard Error	% of Total Trees	% of Total $	Avg. $/tree
Silver maple	26.9	2,045	3,572.5	3,501	5,546	(N/A)	21.3	27.1	64.49
Green ash	14.6	1,106	2,018.9	1,979	3,084	(N/A)	14.1	15.1	54.11
Norway maple	10.7	809	1,569.9	1,538	2,347	(N/A)	10.9	11.5	53.34
Apple	3.9	298	595.5	584	882	(N/A)	9.4	4.3	23.21
Black walnut	6.3	475	890.9	873	1,348	(N/A)	5.7	6.6	58.60
Northern hackberry	6.5	494	945.0	926	1,420	(N/A)	4.5	6.9	78.89
Maple	1.9	143	247.7	243	386	(N/A)	3.7	1.9	25.71
Pin oak	4.3	330	590.5	579	909	(N/A)	3.7	4.4	60.59
Blue spruce	1.3	101	170.6	167	268	(N/A)	3.5	1.3	19.17
Sugar maple	2.5	189	344.3	337	526	(N/A)	2.0	2.6	65.76
Siberian elm	3.1	234	417.5	409	644	(N/A)	2.0	3.1	80.45
Eastern redbud	0.3	21	44.3	43	64	(N/A)	1.5	0.3	10.68
Pear	0.6	45	86.0	84	130	(N/A)	1.5	0.6	21.59
American basswood	1.5	116	227.5	223	339	(N/A)	1.5	1.7	56.49
Honeylocust	1.8	135	232.0	227	362	(N/A)	1.2	1.8	72.38
Spruce	0.4	30	52.2	51	81	(N/A)	1.2	0.4	16.21
American sycamore	1.8	134	247.9	243	377	(N/A)	1.2	1.8	75.35
Bur oak	1.0	72	136.0	133	206	(N/A)	1.2	1.0	41.12
Other street trees	7.6	576	1,015.1	995	1,571	(N/A)	9.7	7.7	40.29
Citywide total	96.9	7,352	13,404.4	13,136	20,488	(N/A)	100.0	100.0	50.84

Table 2: Annual Stormwater Benefits

Anita

Annual Stormwater Benefits of Public Trees by Species

1/11/2013

Species	Total rainfall interception (Gal)	Total ($)	Standard Error	% of Total Trees	% of Total $	Avg. $/tree
Silver maple	357,133	9,679	(N/A)	21.3	33.8	112.55
Green ash	149,182	4,043	(N/A)	14.1	14.1	70.93
Norway maple	102,769	2,785	(N/A)	10.9	9.7	63.30
Apple	17,244	467	(N/A)	9.4	1.6	12.30
Black walnut	67,423	1,827	(N/A)	5.7	6.4	79.45
Northern hackberry	63,479	1,720	(N/A)	4.5	6.0	95.58
Maple	11,090	301	(N/A)	3.7	1.1	20.04
Pin oak	46,146	1,251	(N/A)	3.7	4.4	83.38
Blue spruce	16,447	446	(N/A)	3.5	1.6	31.84
Sugar maple	29,239	792	(N/A)	2.0	2.8	99.06
Siberian elm	35,456	961	(N/A)	2.0	3.4	120.12
Eastern redbud	1,395	38	(N/A)	1.5	0.1	6.30
Pear	2,590	70	(N/A)	1.5	0.3	11.70
American basswood	15,916	431	(N/A)	1.5	1.5	71.89
Honeylocust	21,643	587	(N/A)	1.2	2.1	117.31
Spruce	4,481	121	(N/A)	1.2	0.4	24.29
American sycamore	22,808	618	(N/A)	1.2	2.2	123.63
Bur oak	10,665	289	(N/A)	1.2	1.0	57.81
Other street trees	81,884	2,219	(N/A)	9.7	7.8	56.90
Citywide total	1,056,992	28,646	(N/A)	100.0	100.0	71.08

Table 3: Annual Air Quality Benefits

Anita

Annual Air Quality Benefits of Public Trees by Species

1/11/2013

	Deposition (lb)				Total	Avoided (lb)				Total	BVOC	BVOC	Total	Total	Standard	% of Total	Avg.
Species	O_3	NO_2	PM_{10}	SO_2	Depos. ($)	NO_2	PM_{10}	VOC	SO_2	Avoided ($)	Emissions (lb)	Emissions ($)	(lb)	($)	Error	Trees	$/tree
Silver maple	57.7	9.8	28.8	2.6	312	127.3	18.6	17.8	121.9	796	-30.5	-114	353.8	994	(N/A)	21.3	11.55
Green ash	16.8	2.7	8.3	0.8	90	69.8	10.1	9.7	66.0	434	0.0	0	184.1	524	(N/A)	14.1	9.20
Norway maple	21.1	3.6	10.3	0.9	114	51.9	7.5	7.1	48.3	321	-4.9	-18	146.0	416	(N/A)	10.9	9.47
Apple	5.3	0.9	2.5	0.2	28	19.3	2.8	2.6	17.8	119	0.0	0	51.5	147	(N/A)	9.4	3.87
Black walnut	7.7	1.2	3.8	0.3	41	30.2	4.4	4.2	28.4	187	0.0	0	80.2	229	(N/A)	5.7	9.94
Northern hackberry	9.8	1.7	5.0	0.4	53	31.6	4.6	4.3	29.5	196	0.0	0	86.9	249	(N/A)	4.5	13.83
Maple	1.9	0.3	1.0	0.1	10	8.9	1.3	1.2	8.5	56	-0.7	-3	22.4	63	(N/A)	3.7	4.20
Pin oak	7.8	1.4	4.0	0.4	43	20.7	3.0	2.9	19.7	129	-14.6	-55	45.3	117	(N/A)	3.7	7.82
Blue spruce	2.0	0.4	1.7	0.2	13	6.2	0.9	0.9	6.0	39	-5.8	-22	12.6	31	(N/A)	3.5	2.20
Sugar maple	3.9	0.7	1.9	0.2	21	11.9	1.7	1.6	11.3	74	-3.0	-11	30.1	84	(N/A)	2.0	10.45
Siberian elm	6.3	1.1	3.0	0.3	34	14.7	2.1	2.0	14.0	92	0.0	0	43.6	126	(N/A)	2.0	15.71
Eastern redbud	0.4	0.1	0.2	0.0	2	1.4	0.2	0.2	1.2	8	0.0	0	3.7	11	(N/A)	1.5	1.78
Pear	0.9	0.1	0.4	0.0	5	2.9	0.4	0.4	2.7	18	0.0	0	7.8	22	(N/A)	1.5	3.73
American basswood	2.0	0.3	1.0	0.1	11	7.5	1.1	1.0	6.9	46	-1.8	-7	18.2	50	(N/A)	1.5	8.41
Honeylocust	4.3	0.7	1.9	0.2	23	8.3	1.2	1.2	8.0	52	-3.4	-13	22.5	62	(N/A)	1.2	12.42
Spruce	0.4	0.1	0.4	0.1	3	1.9	0.3	0.3	1.8	12	-1.5	-6	3.7	9	(N/A)	1.2	1.83
American sycamore	3.1	0.5	1.4	0.1	16	8.5	1.2	1.2	8.0	53	0.0	0	24.0	69	(N/A)	1.2	13.77
Bur oak	1.3	0.2	0.6	0.1	7	4.6	0.7	0.6	4.3	29	0.0	0	12.3	35	(N/A)	1.2	7.05
Other street trees	13.8	2.5	8.9	1.1	82	36.0	5.3	5.0	34.3	225	-21.1	-79	85.9	228	(N/A)	9.7	5.84
Citywide total	166.5	28.3	85.3	8.1	910	463.4	67.4	64.2	438.7	2,884	-87.4	-328	1,234.7	3,466	(N/A)	100.0	8.60

Table 4: Annual Carbon Stored

Anita

Stored CO2 Benefits of Public Trees by Species

1/11/2013

Species	Total Stored CO2 (lbs)	Total ($)	Standard Error	% of Total Trees	% of Total $	Avg. $/tree
Silver maple	1,261,185	9,459	(N/A)	21.3	34.7	109.99
Green ash	539,680	4,048	(N/A)	14.1	14.8	71.01
Norway maple	346,028	2,595	(N/A)	10.9	9.5	58.98
Apple	84,360	633	(N/A)	9.4	2.3	16.65
Black walnut	247,023	1,853	(N/A)	5.7	6.8	80.55
Northern	143,260	1,074	(N/A)	4.5	3.9	59.69
Maple	22,672	170	(N/A)	3.7	0.6	11.34
Pin oak	199,066	1,493	(N/A)	3.7	5.5	99.53
Blue spruce	12,063	90	(N/A)	3.5	0.3	6.46
Sugar maple	110,097	826	(N/A)	2.0	3.0	103.22
Siberian elm	152,483	1,144	(N/A)	2.0	4.2	142.95
Eastern redbud	7,304	55	(N/A)	1.5	0.2	9.13
Pear	13,022	98	(N/A)	1.5	0.4	16.28
American	72,890	547	(N/A)	1.5	2.0	91.11
Honeylocust	55,722	418	(N/A)	1.2	1.5	83.58
Spruce	2,892	22	(N/A)	1.2	0.1	4.34
American	99,205	744	(N/A)	1.2	2.7	148.81
Bur oak	40,201	302	(N/A)	1.2	1.1	60.30
Other street trees	103,162	1,706	(N/A)	9.7	6.3	43.74
Citywide total	3,636,585	27,274	(N/A)	100.0	100.0	67.68

Table 5: Annual Carbon Sequestered

Anita

Annual CO_2 Benefits of Public Trees by Species

1/11/2013

Species	Sequestered (lb)	Sequestered ($)	Decomposition Release (lb)	Maintenance Release (lb)	Total Released ($)	Avoided (lb)	Avoided ($)	Net Total (lb)	Total ($)	Standard Error	% of Total Trees	% of Total $	Avg. $/tree
Silver maple	102,299	767	-6,054	-17	-46	45,187	339	141,415	1,061	(N/A)	21.3	35.9	12.33
Green ash	35,478	266	-2,590	-11	-20	24,434	183	57,310	430	(N/A)	14.1	14.6	7.54
Norway maple	16,833	126	-1,661	-9	-13	17,868	134	33,031	248	(N/A)	10.9	8.4	5.63
Apple	6,202	47	-405	-7	-3	6,594	49	12,384	93	(N/A)	9.4	3.1	2.44
Black walnut	15,822	119	-1,186	-4	-9	10,492	79	25,125	188	(N/A)	5.7	6.4	8.19
Northern hackberry	8,584	64	-688	-4	-5	10,918	82	18,811	141	(N/A)	4.5	4.8	7.84
Maple	3,173	24	-109	-3	-1	3,157	24	6,218	47	(N/A)	3.7	1.6	3.11
Pin oak	19,228	144	-956	-3	-7	7,296	55	25,566	192	(N/A)	3.7	6.5	12.78
Blue spruce	960	7	-58	-3	0	2,235	17	3,134	24	(N/A)	3.5	0.8	1.68
Sugar maple	5,827	44	-528	-2	-4	4,168	31	9,465	71	(N/A)	2.0	2.4	8.87
Siberian elm	6,173	46	-732	-2	-6	5,181	39	10,620	80	(N/A)	2.0	2.7	9.96
Eastern redbud	610	5	-35	-1	0	458	3	1,031	8	(N/A)	1.5	0.3	1.29
Pear	1,069	8	-63	-1	0	1,000	8	2,006	15	(N/A)	1.5	0.5	2.51
American basswood	4,528	34	-350	-1	-3	2,563	19	6,740	51	(N/A)	1.5	1.7	8.43
Honeylocust	5,394	40	-267	-1	-2	2,974	22	8,100	61	(N/A)	1.2	2.1	12.15
Spruce	354	3	-14	-1	0	660	5	999	7	(N/A)	1.2	0.3	1.50
American sycamore	4,490	34	-476	-1	-4	2,957	22	6,969	52	(N/A)	1.2	1.8	10.45
Bur oak	2,450	18	-193	-1	-1	1,599	12	3,855	29	(N/A)	1.2	1.0	5.78
Other street trees	9,554	72	-1,092	-8	-8	12,738	96	21,193	159	(N/A)	9.7	5.4	4.08
Citywide total	249,027	1,868	-17,456	-79	-132	162,479	1,219	393,972	2,955	(N/A)	100.0	100.0	7.33

Table 6: Annual Social and Aesthetic Benefits

Anita

Annual Aesthetic/Other Benefits of Public Trees by Species

1/11/2013

Species	Total ($)	Standard Error	% of Total Trees	% of Total $	Avg. $/tree
Silver maple	8,346	(N/A)	21.3	37.2	97.05
Green ash	3,048	(N/A)	14.1	13.6	53.47
Norway maple	1,566	(N/A)	10.9	7.0	35.59
Apple	360	(N/A)	9.4	1.6	9.46
Black walnut	1,312	(N/A)	5.7	5.9	57.06
Northern hackberry	1,113	(N/A)	4.5	5.0	61.82
Maple	487	(N/A)	3.7	2.2	32.47
Pin oak	1,501	(N/A)	3.7	6.7	100.05
Blue spruce	292	(N/A)	3.5	1.3	20.87
Sugar maple	596	(N/A)	2.0	2.7	74.54
Siberian elm	399	(N/A)	2.0	1.8	49.86
Eastern redbud	35	(N/A)	1.5	0.2	5.84
Pear	62	(N/A)	1.5	0.3	10.31
American basswood	342	(N/A)	1.5	1.5	56.95
Honeylocust	1,361	(N/A)	1.2	6.1	272.26
Spruce	102	(N/A)	1.2	0.5	20.46
American sycamore	330	(N/A)	1.2	1.5	65.99
Bur oak	209	(N/A)	1.2	0.9	41.77
Other street trees	969	(N/A)	9.7	4.3	24.86
Citywide total	22,430	(N/A)	100.0	100.0	55.66

Table 7: Summary of Benefits in Dollars

Anita

Total Annual Benefits of Public Trees by Species ($)

1/11/201

Species	Energy	CO_2	Air Quality	Stormwater	Aesthetic/Other	Total ($)	Standard Error	% of Total $
Silver maple	5,546	1,061	994	9,679	8,346	25,625	(±0)	32.9
Green ash	3,084	430	524	4,043	3,048	11,129	(±0)	14.3
Norway maple	2,347	248	416	2,785	1,566	7,362	(±0)	9.4
Apple	882	93	147	467	360	1,949	(±0)	2.5
Black walnut	1,348	188	229	1,827	1,312	4,905	(±0)	6.3
Northern hackberry	1,420	141	249	1,720	1,113	4,643	(±0)	6.0
Maple	386	47	63	301	487	1,283	(±0)	1.6
Pin oak	909	192	117	1,251	1,501	3,969	(±0)	5.1
Blue spruce	268	24	31	446	292	1,060	(±0)	1.4
Sugar maple	526	71	84	792	596	2,069	(±0)	2.7
Siberian elm	644	80	126	961	399	2,209	(±0)	2.8
Eastern redbud	64	8	11	38	35	155	(±0)	0.2
Pear	130	15	22	70	62	299	(±0)	0.4
American basswood	339	51	50	431	342	1,213	(±0)	1.6
Honeylocust	362	61	62	587	1,361	2,433	(±0)	3.1
Spruce	81	7	9	121	102	321	(±0)	0.4
American sycamore	377	52	69	618	330	1,446	(±0)	1.9
Bur oak	206	29	35	289	209	768	(±0)	1.0
Other street trees	1,571	159	228	2,219	969	5,147	(±0)	6.6
Citywide Total	20,488	2,955	3,466	28,646	22,430	77,986	(±0)	100.0

Table 8: Summary of Maintenance Recommendations by Diameter Class

Anita

Recommended Maintenance for Public Trees (None)

1/11/2013

	DBH Class (in)									
Zone	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	>42	Total
1	0	0	0	0	0	0	0	0	0	0
Citywide total	0	0	0	0	0	0	0	0	0	0

	DBH Class (in)										
Maintenance Type	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	>42	Total	% of Total Population
None	0	0	0	0	0	0	0	0	0	0	0.00
Young tree (routine)	17	22	3	0	0	0	1	0	0	43	10.67
Young tree (immediate)	0	0	0	0	0	0	0	0	0	0	0.00
Mature tree (routine)	0	15	36	55	85	94	25	8	3	321	79.65
Mature tree (immediate)	0	0	0	1	0	4	2	0	0	7	1.74
Critical concern (public safety)	0	0	0	2	10	13	2	3	2	32	7.94
Citywide total	17	37	39	58	95	111	30	11	5	403	100.00

Table 9: Summary of Recommended Tasks by Diameter Class

Anita

Priority Task Summary for Public Trees (None)

1/11/2013

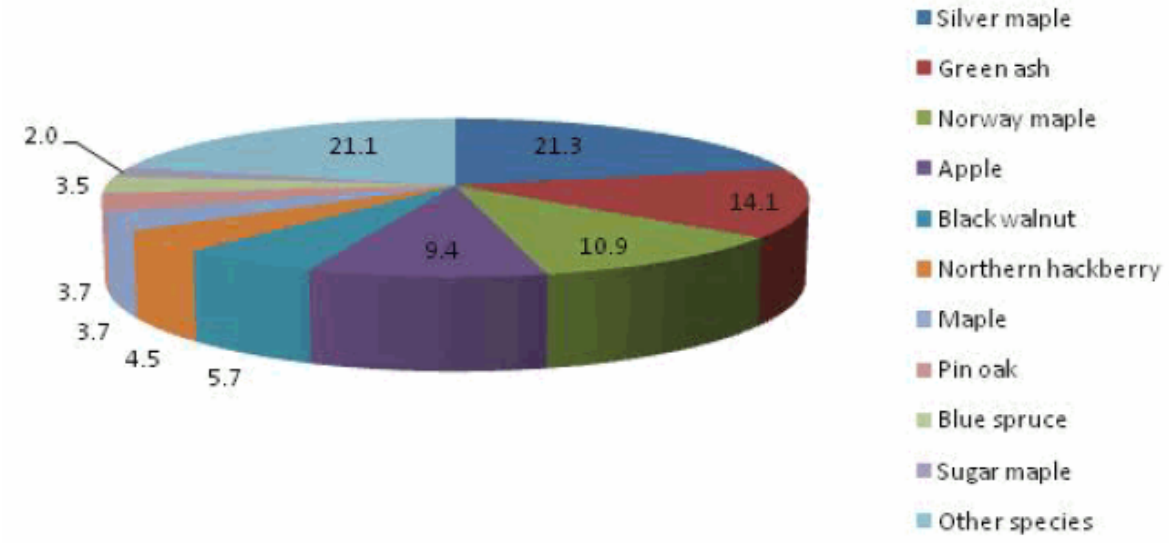
	DBH Class (in)									
Zone	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	>42	Total
1	16	33	29	48	65	57	20	8	2	278
Citywide total	16	33	29	48	65	57	20	8	2	278

	DBH Class (in)										
Maintenance Type	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	>42	Total	% of Total Population
None	16	33	29	48	65	57	20	8	2	278	68.98
Stake/Train	0	3	3	1	0	0	0	0	0	7	1.74
Clean	1	0	7	6	24	42	9	3	2	94	23.33
Raise	0	0	0	0	1	1	0	0	0	2	0.50
Reduce	0	1	0	0	0	0	0	0	0	1	0.25
Remove	0	0	0	1	2	7	1	0	1	12	2.98
Treat pest/disease	0	0	0	2	3	4	0	0	0	9	2.23
Citywide total	17	37	39	58	95	111	30	11	5	403	100.00

Anita

Species Distribution of Public Trees (%)

1/11/2013



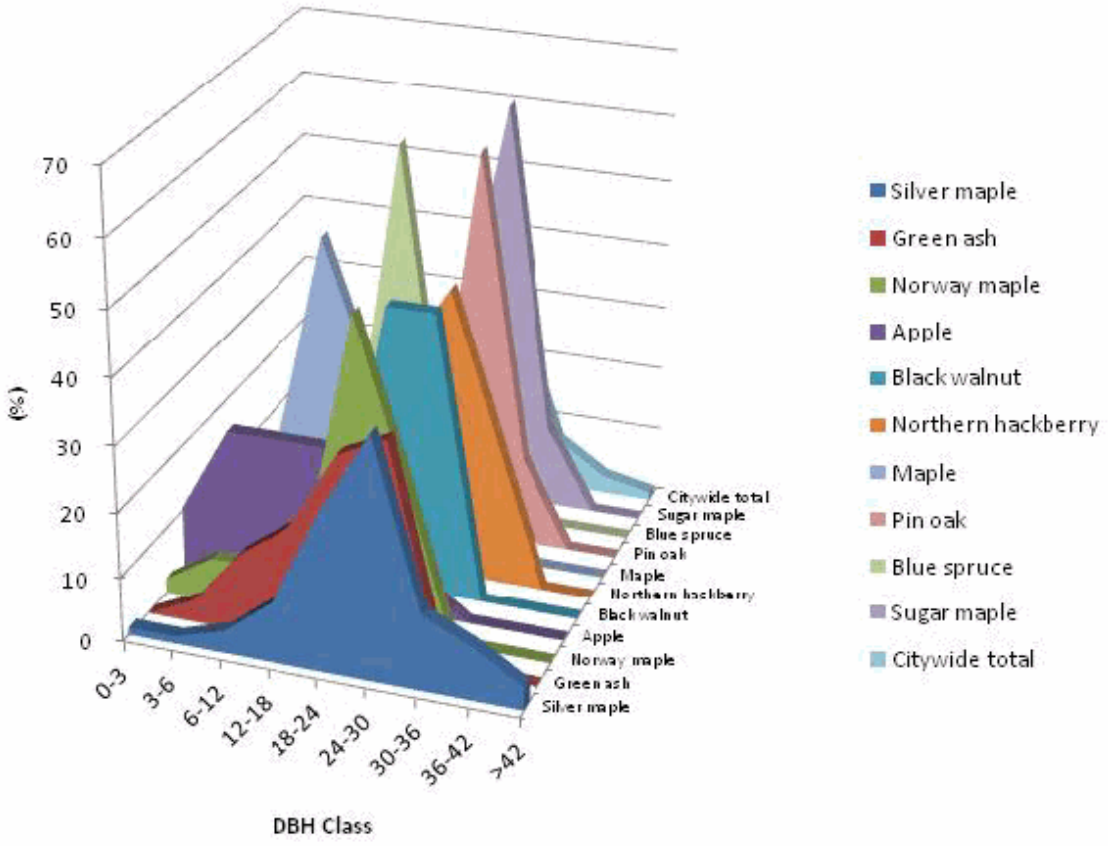
Species	Percent
Silver maple	21.3
Green ash	14.1
Norway maple	10.9
Apple	9.4
Black walnut	5.7
Northern hackberry	4.5
Maple	3.7
Pin oak	3.7
Blue spruce	3.5
Sugar maple	2.0
Other species	21.1
Total	100.0

Figure 1: Species Distribution

Anita

Relative Age Distribution of Top 10 Public Tree Species (%)

1/11/2013



	DBH class (in)								
Species	0-3	3-6	6-12	12-18	18-24	24-30	30-36	36-42	>42
Silver maple	1.2	1.2	3.5	9.3	24.4	37.2	11.6	8.1	3.5
Green ash	0.0	3.5	12.3	17.5	29.8	33.3	3.5	0.0	0.0
Norway maple	2.3	6.8	6.8	11.4	47.7	25.0	0.0	0.0	0.0
Apple	10.5	23.7	23.7	23.7	13.2	5.3	0.0	0.0	0.0
Black walnut	4.3	0.0	4.3	4.3	43.5	43.5	0.0	0.0	0.0
Northern hackberry	0.0	0.0	0.0	0.0	33.3	44.4	22.2	0.0	0.0
Maple	13.3	13.3	46.7	26.7	0.0	0.0	0.0	0.0	0.0
Pin oak	6.7	6.7	0.0	6.7	6.7	60.0	13.3	0.0	0.0
Blue spruce	0.0	28.6	7.1	57.1	7.1	0.0	0.0	0.0	0.0
Sugar maple	0.0	0.0	0.0	0.0	25.0	62.5	12.5	0.0	0.0
Citywide total	4.2	9.2	9.7	14.4	23.6	27.5	7.4	2.7	1.2

Figure 2: Relative Age Class

Anita

Functional (Foliage) Condition of Public Trees by Species (%)

1/11/2013

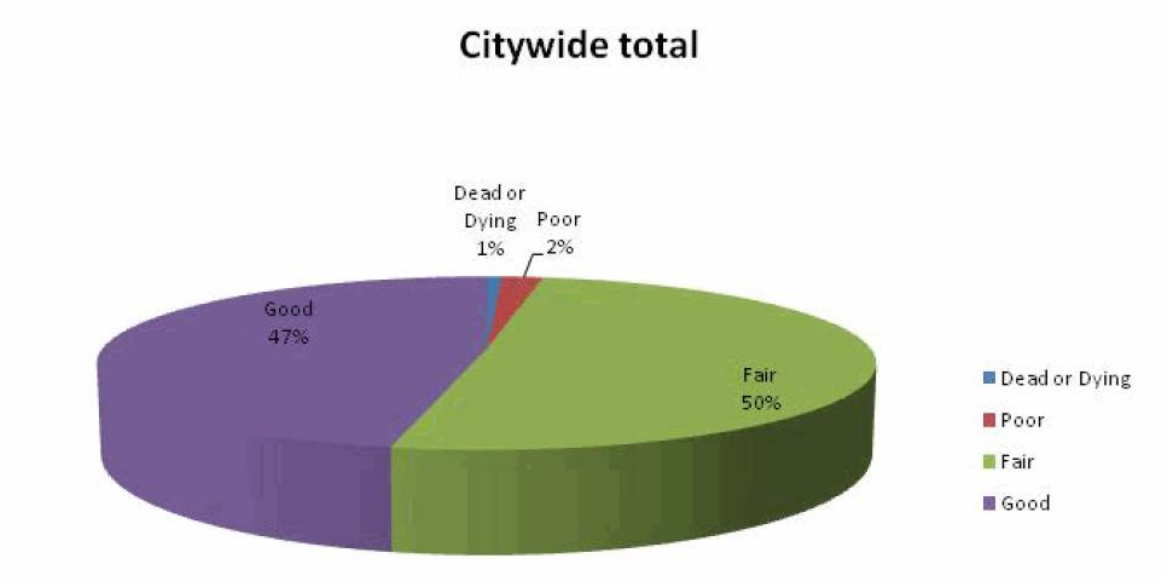


Figure 3: Foliage Condition

Anita

Structural (Woody) Condition of Public Trees by Species (%)

1/11/2013

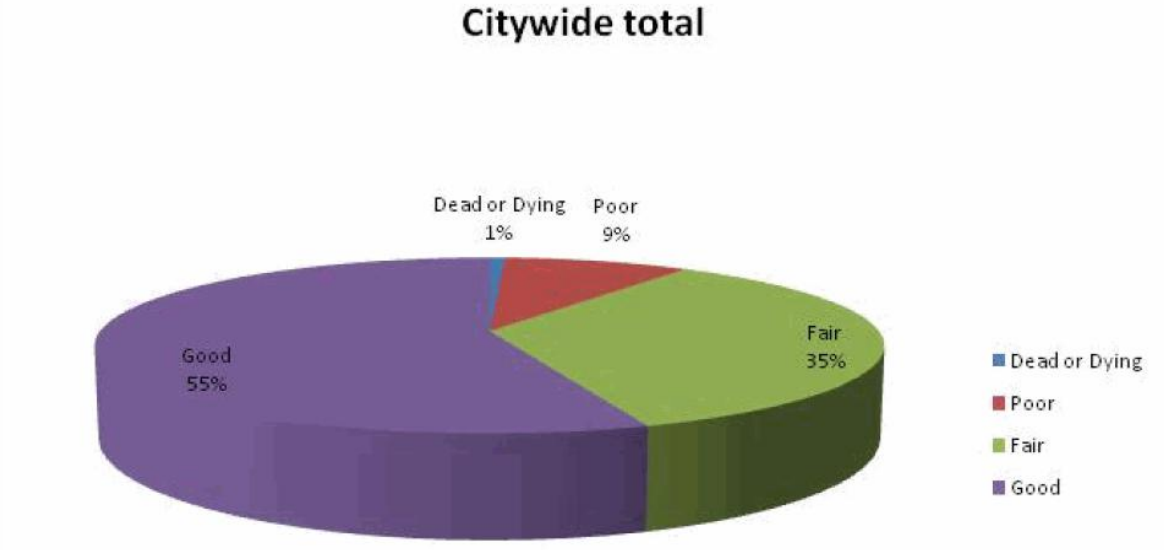
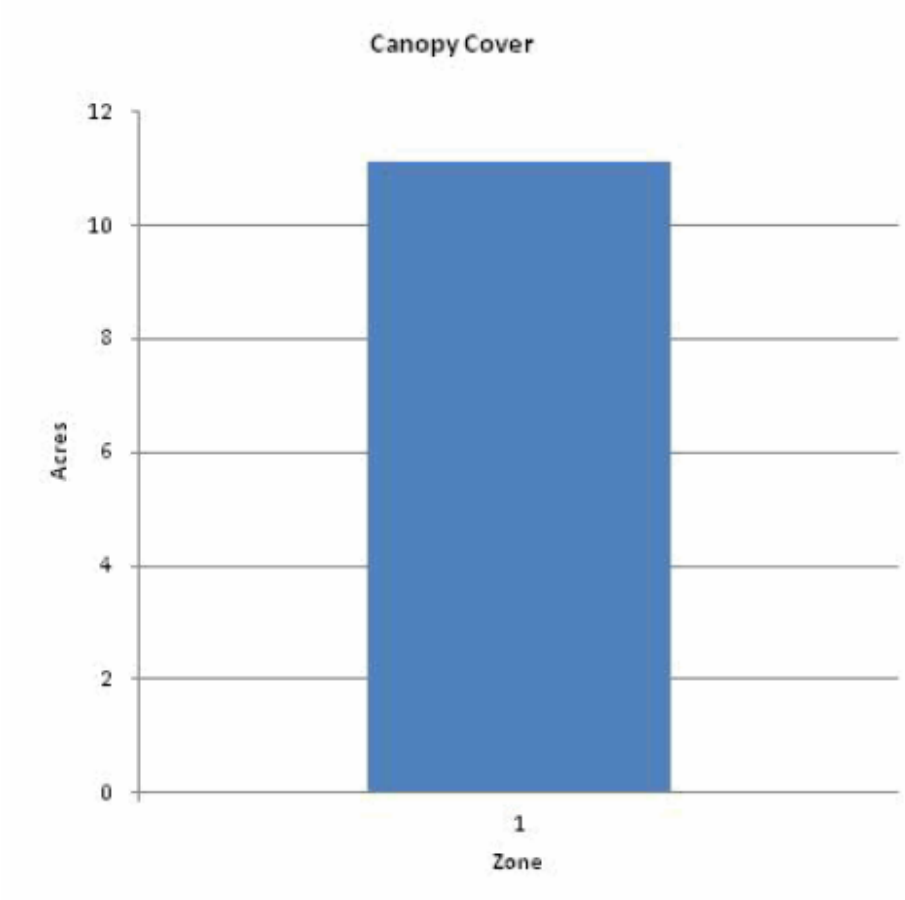


Figure 4: Wood Condition

Anita

Canopy Cover of Public Trees (Acres)

1/11/2013



Zone	Acres	% of Total Canopy Cover
1	11	100.0
Citywide total	11	100.0

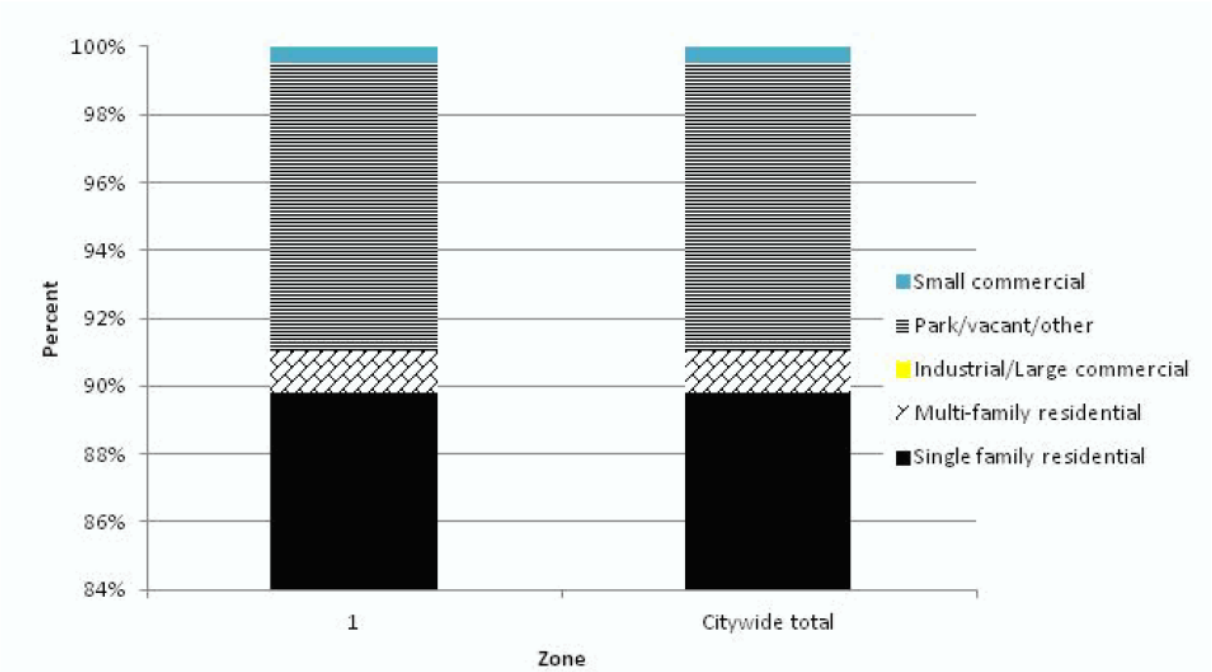
	Total Land Area	Total Street and Sidewalk Area	Total Canopy Cover	Canopy Cover as % of Total Land Area	Canopy Cover as % of Total Streets and Sidewalks
Citywide	0	0	11		

Figure 5: Canopy Cover in Acres

Anita

Land Use of Public Trees by Zone (%)

1/11/2013



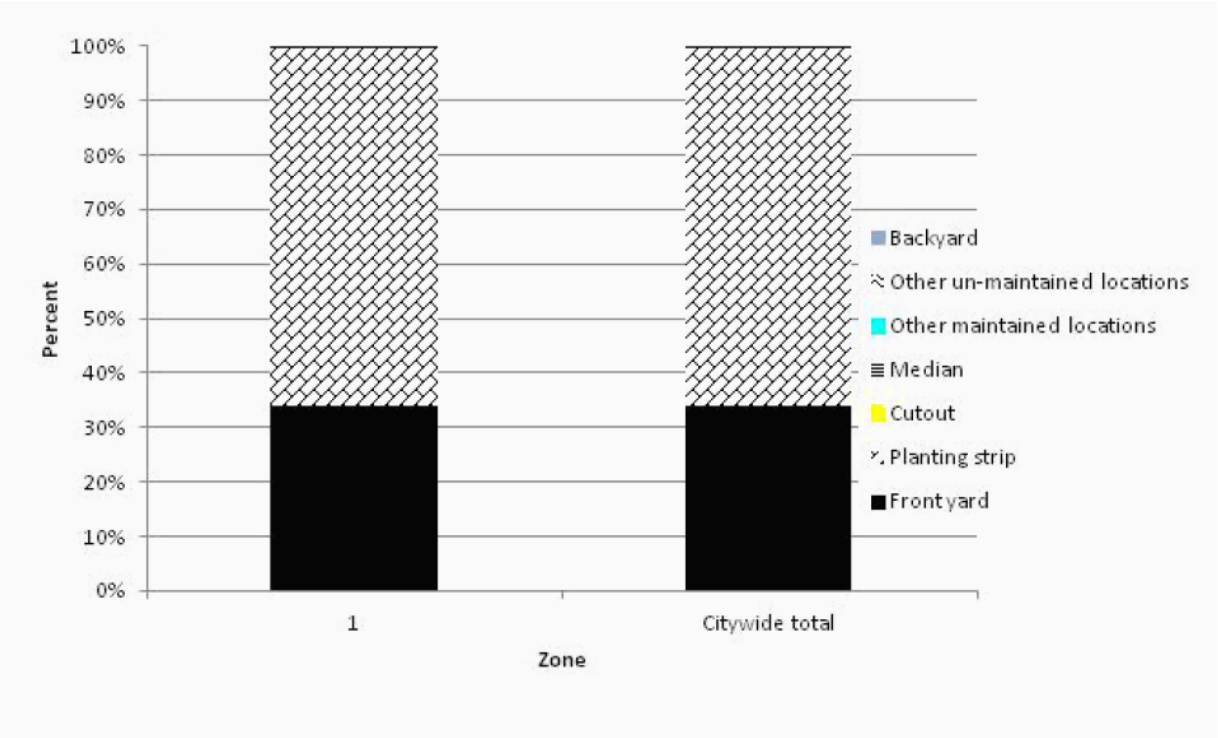
Zone	Single family residential	Multi-family residential	Industrial/ Large commercial	Park/vacant/ other	Small commercial
1	89.8	1.2	0.0	8.4	0.5
Citywide total	89.8	1.2	0.0	8.4	0.5

Figure 6: Land Use of city/park trees

Anita

Location of Public Trees by Zone (%)

1/11/2013



Zone	Front yard	Planting strip	Cutout	Median	Other maintained locations	Other un-maintained locations	Backyard
1	34.0	65.8	0.0	0.2	0.0	0.0	0.0
Citywide total	34.0	65.8	0.0	0.2	0.0	0.0	0.0

Figure 7: Location of city/park trees

Appendix B: ArcGIS Mapping

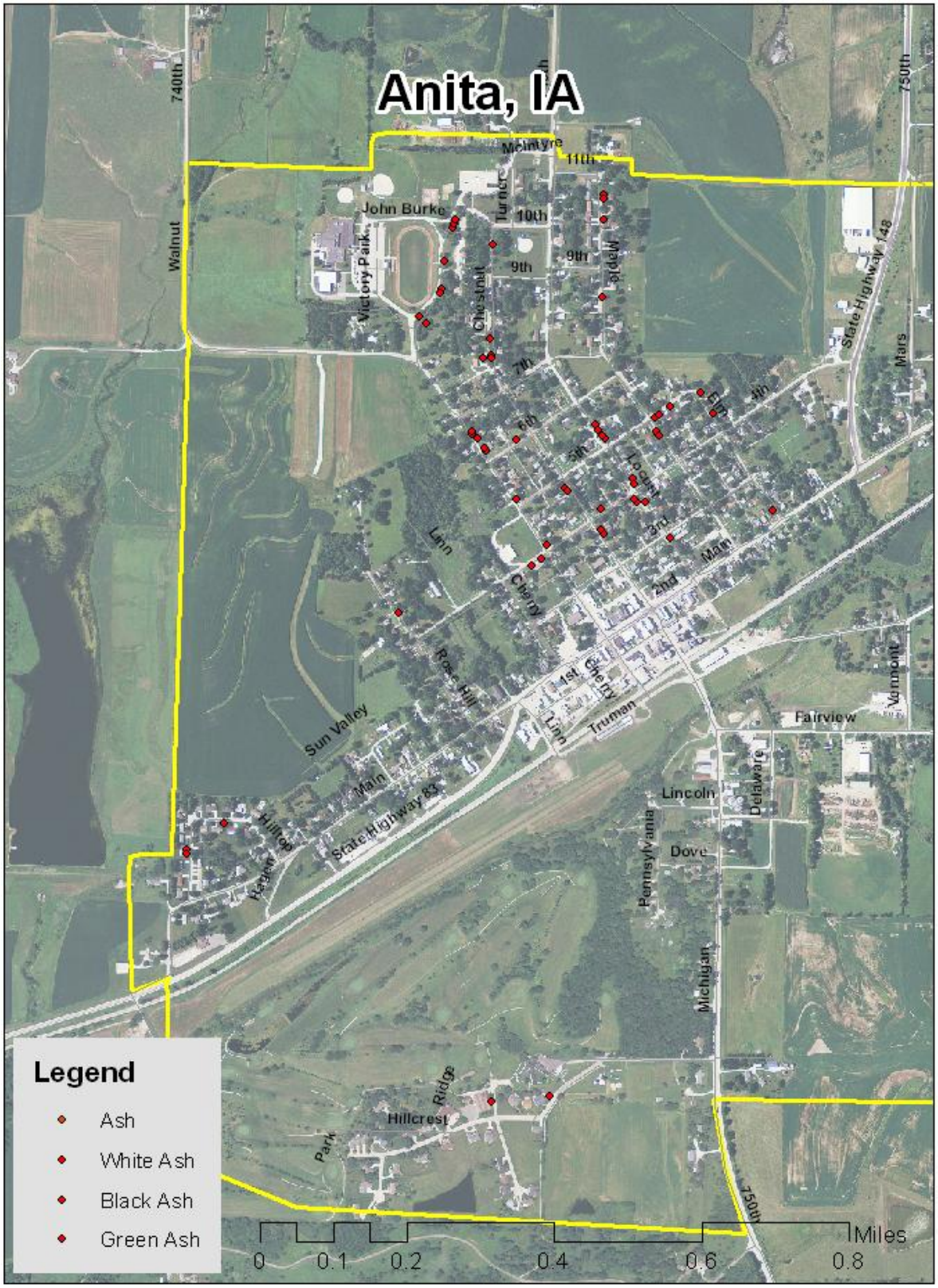


Figure 1: Location of Ash Trees

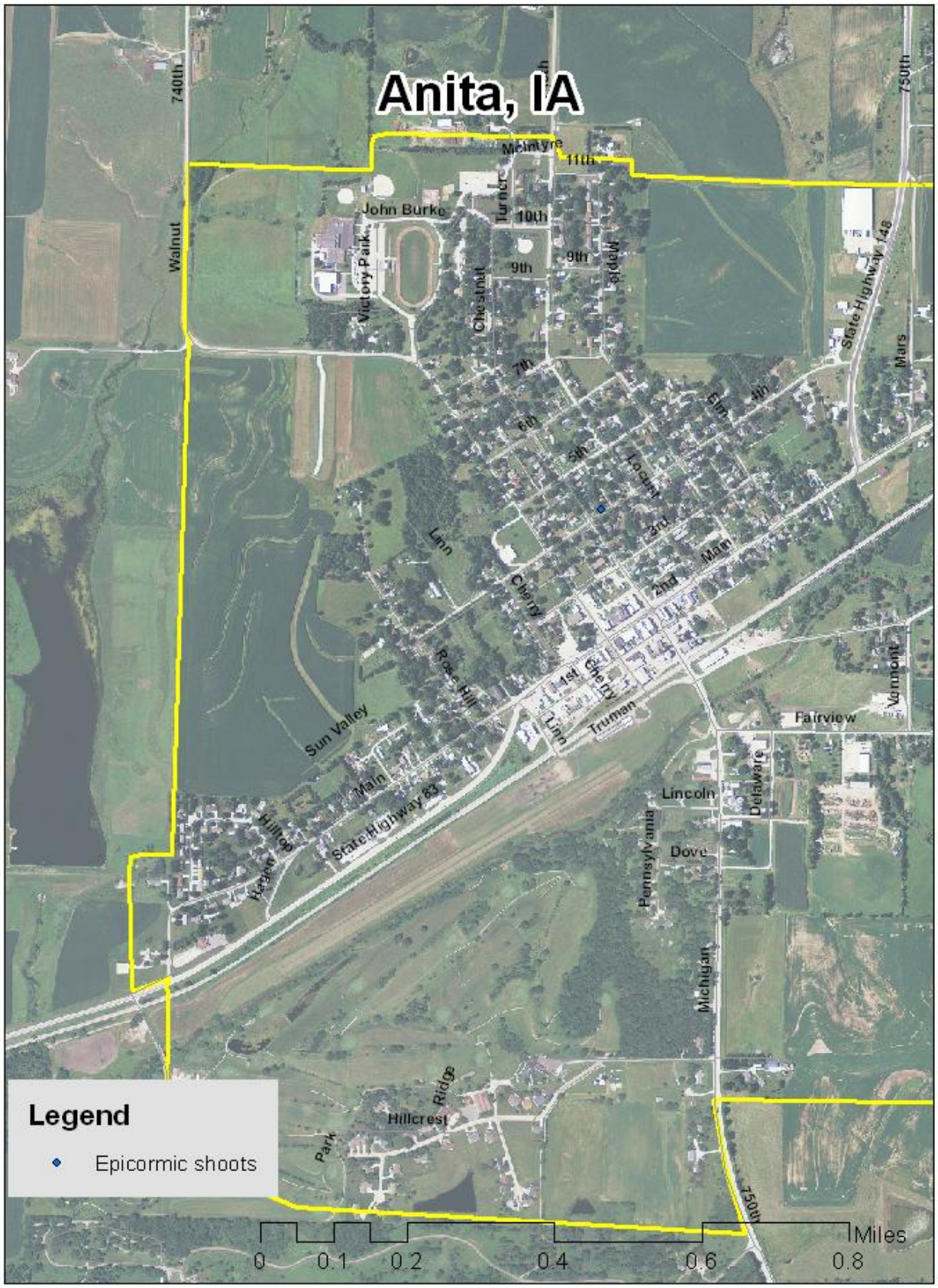


Figure 2: Location of EAB symptoms

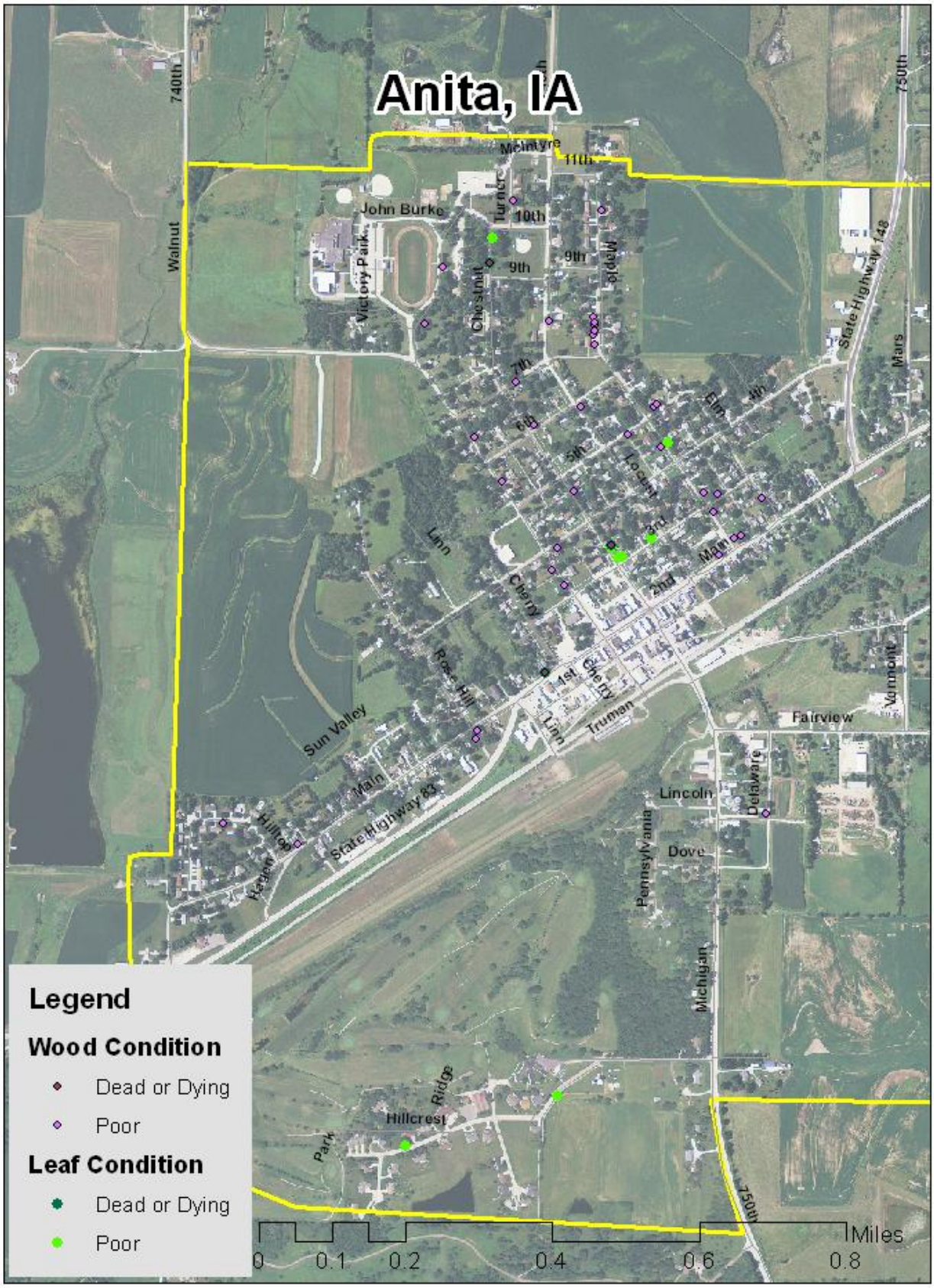


Figure 3: Location of Poor Condition Trees

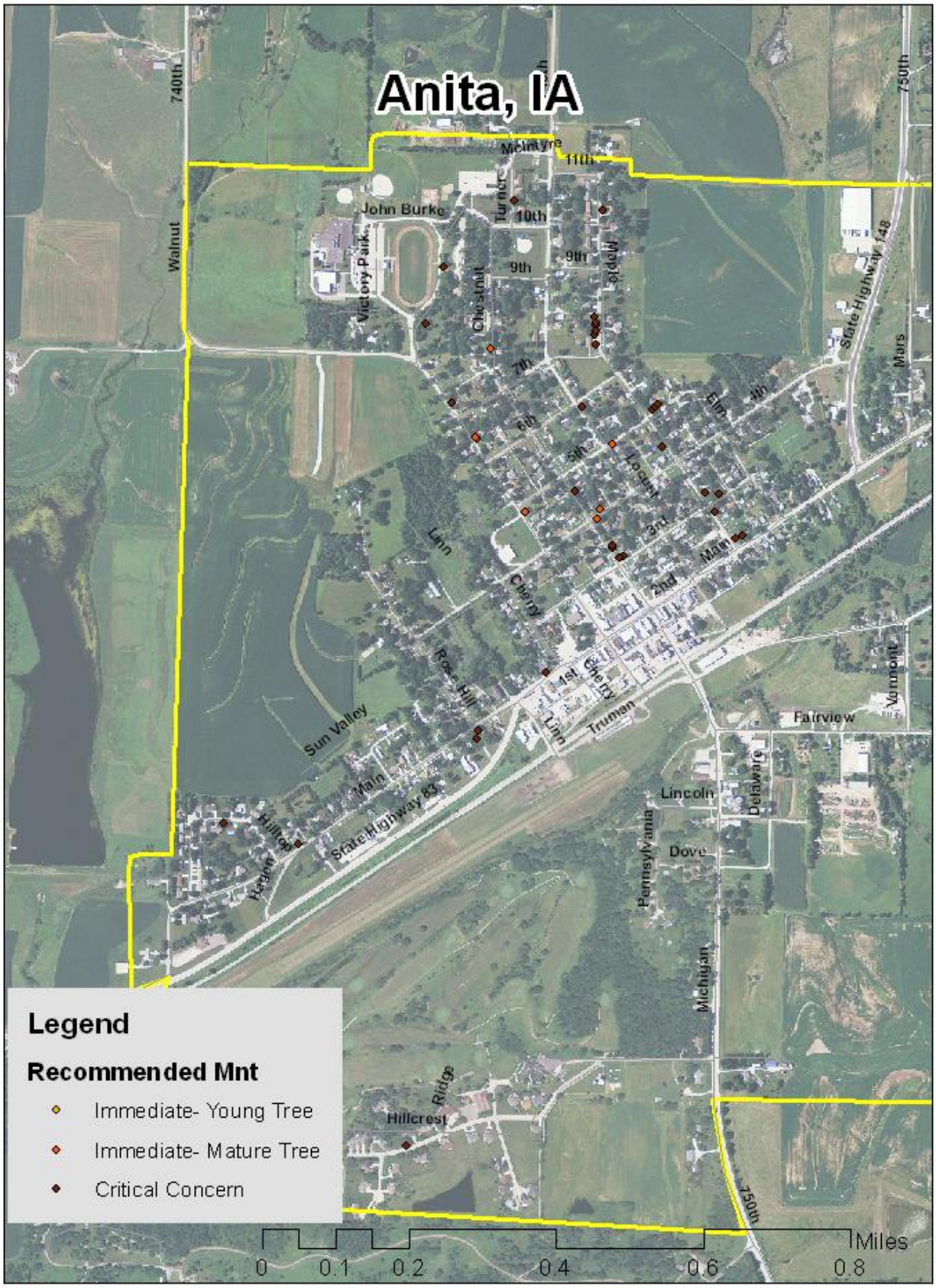


Figure 4: Location of Trees with Recommended Maintenance

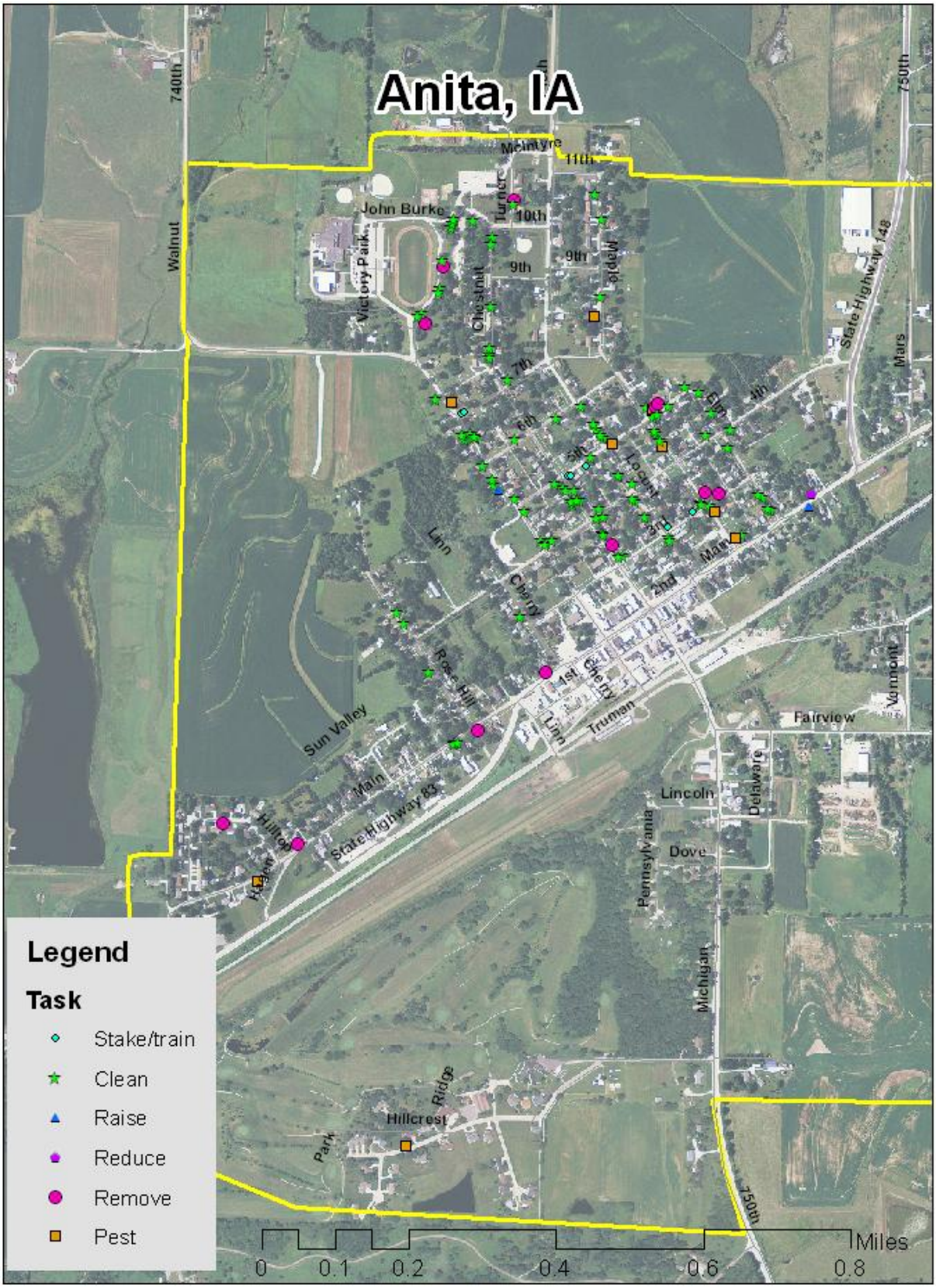


Figure 5: Maintenance Tasks *City ownership of the trees recommended for removal should be verified prior to any removal*

Appendix C: Anita Tree Ordinances

CHAPTER 151
TREES AND GRASS

151.01 DEFINITION. For use in this chapter, "boulevard" means that part of the street, avenue or highway in the City not covered by sidewalk and lying between the lot line and the curb line; or, on unpaved streets, that part of the street, avenue or highway lying between the lot line and that portion of the street usually traveled by vehicular traffic.

151.02 PLANTING RESTRICTIONS. No tree shall be planted in any boulevard or street except in accordance with the following:
1. Alignment. All tress planted in any street shall be planted in the boulevard midway between the outer line of the sidewalk and the curb. In the event a curb line is not established, trees shall be planted on a line ten (10) feet from the property line.
2. Spacing. Trees shall not be planted on any boulevard which is less than nine (9) feet in width, or contains less than eighty-one (81) square feet of exposed soil surface per tree. Trees shall not be planted closer than twenty (20) feet from street intersections (property lines extended) and ten (10) feet from driveways. If it is at all possible trees should be planted inside the property lines and not between the sidewalk and the curb.
3. Prohibited Trees. No person shall plant in any street any fruit-bearing tree or any tree of the kinds commonly known as cottonwood, poplar, box elder, Chinese elm, evergreen, willow or black walnut.

151.03 DUTY TO TRIM TREES. The owner or agent of the abutting property shall keep the trees on, or overhanging the street, trimmed so that all branches will be at least eighteen (18) feet above the surface of a street, twenty (20) feet above the surface of a primary highway, and eight (8) feet above the sidewalks. If the abutting property owner fails to trim the trees, the City may serve notice on the abutting property owner requiring that such action be taken within five (5) days. If such action is not taken within that time, the
City may perform the required action and assess the costs against the abutting property for collection in the same manner as a property tax.
(Code of Iowa, Sec. 364.12[2c, d, & e])

151.04 TRIMMING TREES TO BE SUPERVISED. Except as allowed in Section 151.03, it is unlawful for any person to trim or cut any tree in a street or public place unless the work is done under the supervision of the City.

151.05 DISEASE CONTROL. Any dead, diseased or damaged tree or shrub which may harbor serious insect or disease pests or disease injurious to other trees is hereby declared to be a nuisance.

151.06 INSPECTION AND REMOVAL. The Council shall inspect or cause to be inspected any trees or shrubs in the City reported or suspected to be infected with or damaged by any disease or insect or disease pests, and such trees and shrubs shall be subject to removal as follows:
1. City Property. If it is determined that any such condition exists on any public property, including the strip between the curb and the lot line of private property, the Council may cause such condition to be corrected by treatment or removal. The Council may also order the removal of any trees on the streets of the City which interfere with the making of improvements or with travel thereon.
2. Private Property. If it is determined with reasonable certainty that any such condition exists on private property and that the danger to other trees or to adjoining property or passing motorists or pedestrians is imminent, the Council shall notify by certified mail the owner, occupant or person in charge of such property to correct such condition by treatment or removal within fourteen (14) days of said notification. If such owner, occupant or person in charge of said property fails to comply within 14 days of receipt of notice, the Council may cause the condition to be corrected and the cost assessed against the property.
(Code of Iowa, Sec. 364.12[3b & h])

151.07 CUTTING OR MOWING OF GRASS.
1. Duty to Cut and Mow Lawns and Lots. The owner of any property shall cut and mow all lawns and lots so that such growth shall be less than four (4) inches at all times.
2. Cutting and Mowing by City. If a property owner refuses or fails to cut and mow lawns and lots within forty-eight (48) hours after being delivered a notice from the City to perform such action, the Council may require said work to be done and the cost and expenses thereof shall be assessed to the property owner after due notice is given. The amount of such assessment shall be certified to the County Auditor as provided by law and the same shall be collected with and in the same manner as general property taxes.

The State of Iowa is an Equal Opportunity Employer and provider of ADA services.

Federal law prohibits employment discrimination on the basis of race, color, age, religion, national origin, sex or disability. State law prohibits employment discrimination on the basis of race, color, creed, age, sex, sexual orientation, gender identity, national origin, religion, pregnancy, or disability. State law also prohibits public accommodation (such as access to services or physical facilities) discrimination on the basis of race, color, creed, religion, sex, sexual orientation, gender identity, religion, national origin, or disability. If you believe you have been discriminated against in any program, activity or facility as described above, or if you desire further information, please contact the Iowa Civil Rights Commission, 1-800-457-4416, or write to the Iowa Department of Natural Resources, Wallace State Office Bldg., 502 E. 9th St., Des Moines, IA 50319.

If you need accommodations because of disability to access the services of this Agency, please contact Director Chuck Gipp at 515-281-5918.