Integrated Roadside Vegetation Management Plan



City of Council Bluffs

Version Date: January 2025

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1. Preface

The purpose of the plan is to establish guidelines for future management of Park managed properties that are otherwise public properties and or right-of-ways under Park's jurisdiction. Ultimately, the IRVM Plan will serve as a framework to guide Parks Department and other City Staff in aspects of IRVM.

Update/Version

Version Date: May 2024

Contributors to the Plan

Plan developed Curt Nedved, Horticulture and Grounds Supervisor, Parks and Recreation Department.

Reviewed and Accepted-Parks and Recreation Director - Vincent Martorello _____

Date _____

2. Executive Program Elements

Executive Summary

The purpose of the plan is to establish guidelines for future management of Park managed properties that are otherwise public properties and or right of ways under park's jurisdiction. These properties include right-of-ways along trails, open space areas and city owned properties maintained by the Parks and Recreation Department. The plan will be referenced during the decision making process when planning future right-of-way improvements and ongoing maintenance. Ultimately, the IRVM Plan will serve as a framework to guide Parks Department and other City Staff in aspects of IRVM. The plan will be evaluated and amended as needed with future versions building off of knowledge gained while implementing previous versions. The plan is developed to increase quantity and productivity as funding becomes available. Its long term survivability will depend on completion of:

1. Inventory of areas managed by the Parks and Recreation Department (See Appendix)
2. Prioritization of areas managed
3. Selection of plant species to be used
4. Following all local, state and federal regulation for roadside maintenance

Program Goals

The goals of the plan are to increase the attractiveness and aesthetic appeal of the City of Council Bluffs, decrease maintenance in areas of control, and increase the use and acceptance of native plantings in the right-of-way.

- Decrease labor costs by being proactive in turf, tree, prairie, no mow maintenance, and weed control.
- Minimize noxious weeds complaints.
- Develop a seasonal and yearlong plan for work load.
- Higher use of biological solutions.
- Larger use of native plantings.
- Increase public education.
- Improve water infiltration and decrease erosion.
- Habitat increase for wildlife.
- Reduce material costs by less fertilizations, mowing, and spraying.
- Increase roadside areas athletics by planting of colorful plant material.
- IPM program further developed.

Program History

The history of the roadside maintenance of Council Bluffs has been limited and more reactive than proactive. Currently projects are completed on the basis of priority and workload availability.

IRVM Decision Making Process

The Parks Department Director will be the lead in the decision-making process with the input from Maintenance, Horticulture and Grounds, Sports Complex and Recreation divisions input. Management and supervision of the plan will be completed by the Parks Supervisors. Input is provided by the senior maintenance workers within the Parks Department specializing in Horticultural Operations, Forestry, Turf, and Grounds Maintenance.

Program Type

Council Bluffs' program will be under the direction of the Parks Division which is part of the larger Department of Parks & Recreation. Parks & Recreation is under the direction of the Mayor's Office and the City Council.

Area Map

Area maps can be found in the Appendix.

3. Jurisdictional Recognition and Approval

Management

The Parks Director with input from Supervisors within the Department set the department's day-to-day operations, sets priorities, carries out the business management duties, and with additional staff perform the needed work. The Department Director is also responsible for managing and maintaining budget.

City Council

Council Bluffs City Council is to approve the ordinances (laws) and resolutions (policies) by which the city's government must operate. The Parks and Recreation Commission advises the City Council with respect to the control of parks and recreation centers within the city and also provides for the promotion of recreation and cultural affairs of the city.

Iowa Code and Administrative Rules – State Laws and Regulations

Council Bluffs IRVM plan will be directed by laws and regulations cited in the Code of Iowa.

- 314.17 Mowing law-no mowing before July 15 of ROW
- 314.19 Reseeding Open Ditches
- 314.21 Living Roadway Trust Fund
- 314.22 Integrated Roadside Vegetation Management.
- 317 Iowa Weed Law

Local Laws and Regulations

Local regulations reflect that of the Iowa Code, as well as any other State and Federal Regulations that are specific to management activities that occur within the jurisdiction of the City of Council Bluffs

- Integrated Roadside Vegetation Management
- Mowing on interstates, primary highways, and secondary roads
- Weeds on Roads - Harvesting of Grass
- Obstructions in ROW / Destruction of plants placed in ROW / Crops in ROW
- Noxious Weeds and Enforcement Procedures
- Mowing law-no mowing before July 15 of ROW
- Reseeding Open Ditches
- Living Roadway Trust Fund
- Integrated Roadside Vegetation Management

- Iowa Weed Law

Permitting

Obtained through the City Clerk's office and Community Development Division permits are obtained at City Hall or via the city website. After the permit or request is filled out with the necessary information and fees have been collected, the permit or request is issued to the individual and a copy is filed with the city. The pertinent permits are submitted to the Parks office.

Obstructions, Nuisance, and Enforcement

Obstructions in Highway Rights-Of-Way

Overgrown weeds, trees and shrubs-Mowing and trimming of roadside vegetation to allow for visibility to the roadside and lanes of traffic

Animal kills-Pick up and disposal of roadkill animals to allow for safe traffic flow.

Debris and Garbage-Pickup of debris in lanes of traffic and roadsides of streets and roads we are responsible for.

Notification of problems with obstructions will be made through staff inspections while moving through the area and public information of such obstructions. Staff will be dispatched to the areas reported to remove the obstructions and maintain the roadways to a safe manner.

4. Program Organizational Structure

Staff Organization Chart

Describe staff positions and organizational structure, including Management, Full time, Part time/Seasonal, Future Staffing, and Contractual positions. If you want, you may use the bulleted list below to show the hierarchal structure.

- Mayor
- City Council
- Parks Director
- Parks Maintenance Supervisor
- Horticulture and Grounds Supervisor
- Sports field Supervisor
- Parks Technicians
- Field Staff

Staffing Needs

The IRVM Program needs to have maintenance and / or seasonal staff able and available for roadside herbicide applications, seeding and erosion control work duties, GIS applications, and other duties related to roadside management.

5. Public Involvement

Partners

- Pottawattamie County Conservation Department
- Pheasants Forever
- Ducks Unlimited
- Pottawattamie County Soil and Water Conservation District
- Mid-American Energy
- Black Hills Power
- Iowa State University Extension and Outreach

Volunteers

- Bee City USA

Education and Outreach

Educating the public on integrated concepts and goals of roadside vegetation management within the City of Council Bluffs and the State of Iowa, is of the highest priority of this program and will be expressed at every opportunity through the use of local media, City website, internet, newspapers and brochures and scheduled programs and seminars.

6. Inventory and Analysis

Natural Resources

- Tools
  - Tree Keeper software is within the Parks Department, Horticulture and Grounds Division.
- Vegetation
  - Native plant lists, pollinator area maps, and tree inventories can be found in the appendix.
- Watersheds
  - Mosquito Creek
  - Indian Hills
  - Big Lake Park
- Rivers and Streams
  - Missouri River

Equipment

Equipment inventory includes:

- Skid mount sprayer
- Large area rough mower
- UTV
- ATV

7. Program Operations

Annual Operations

Training, equipment maintenance, stocking parts inventory, and gathering information regarding seeding and burn locations are not specific to any certain time, it occurs throughout the year.

- January – February
  - Cut and mow brush, repair equipment as needed, discuss upcoming projects with staff and operations.
- March – April
  - Start spraying early cool season broadleaves, continue to brush mow as needed.
- May-June
  - Start spraying small trees and brush, continue to spray broadleaf weeds, start first round of grass shoulder mowing, continue seeding construction projects with appropriate seed mixes.
- July – August
  - Continue spraying small trees and brush along with broadleaf weeds, mainly seed with cover crop only on bare ground projects, finish second round of grass shoulder mowing.
- September – October
  - Continue to spray broadleaf weeds and brush, return to seeding projects with more permanent cover, using GIS/GPS equipment, record any information pertaining to IRVM plantings and prescribed fire locations.
- November – December
  - Start budget process for Roadside budgets, finish brush and broadleaf spraying, finish third round of grass shoulder mowing, swap mowers and start brush mowing with boom mower, start chainsaw and chipping operations, gather information for reports.

Vegetation Types for Specific Uses

Examples of using specific plant material to accomplish a certain goal would be to use evergreen tree species for windbreaks, species with solid root systems for soil stabilization, control invasive species with overgrowth, fire resistant species to control fire emergencies, insect and disease resistant species to control outbreaks, flowing plants to attract bees and butterflies, and fruit and nut species to attract wildlife.

Special Projects

Tree inventory to be updated fall of 2024. Currently on Tree Keeper software within the Parks Department, Horticulture and Ground Division.

Training

Identify and describe annual trainings and conferences you or your staff plan to attend.

Safety Procedures

Describe processes and procedures you have in place to safely implement your IRVM program.

8. Methods

Describe the techniques that your program employs to accomplish the work that you do. It is okay to cite and reference the IRVM Technical Manual, but please highlight situations or circumstances where you may differ from standard practices.

Vegetation Establishment

- 1. Propagation and establishment
- 2. Preparation
- 3. Seed Mixes and Rates (see appendix)
- 4. Techniques
- 5. Erosion Control
- 6. Vegetation Establishment and Ongoing Maintenance
- 7. Evaluation

Ongoing Maintenance

Training, equipment maintenance, stocking parts inventory, and gathering information regarding seeding and burn locations occur throughout the year. Burning will be limited due to City code and regulations.

Urban vs Rural Implications

Discuss how vegetation establishment and maintenance vary between urban and rural environments within your jurisdiction.

9. Material Procurement

Sourcing

Seed, herbicide, mulch, and any other materials necessary to perform IRVM functions are purchased as needed at fair market value through reliable vendors. Prices for seed, herbicide, and mulch are reviewed annually by the roadside manager, vendors are contacted, and pricing made available. Materials are then purchased at the lowest price.

Material Handling and Storage

Materials are purchased mostly in bulk. Examples are chemicals and turf seed. The chemical is stored on pallets in a locked building in locked storage cabinets. The building and doors are labeled with placards and the containers have original labels on them. The seed is stored in a cool dry area of storage unit and is pest controlled via bait. The entire storage building is heated and cooled throughout the year. Quantities used are recorded on usage sheets and kept with all labels and safety sheets.

Appendices

Appendix A. Native Seed Mixes

- Native Big bluestem 1.5 lbs/ac
- Purple coneflower 1.6 oz./ ac
- Sideoats gramma 2 lbs/ac
- Rattlesnake master 2.4 oz./ ac
- Canada wild rye 2.5 lbs/ac
- Ox-eye sunflower 4 oz./ ac
- Little bluestem 2 lbs/ac
- Roundheaded bushclover 1 oz./ ac
- Indiangrass 1.5 lbs/ac
- Wild bergamot 0.6 oz./ ac
- Partridge pea 8 oz./ ac
- Foxglove penstamen 0.5 oz./ ac
- Leadplant 0.5 oz./ ac
- Large flowered penstemon 0.5 oz./ ac
- Butterfly milkweed 0.8 oz./ ac

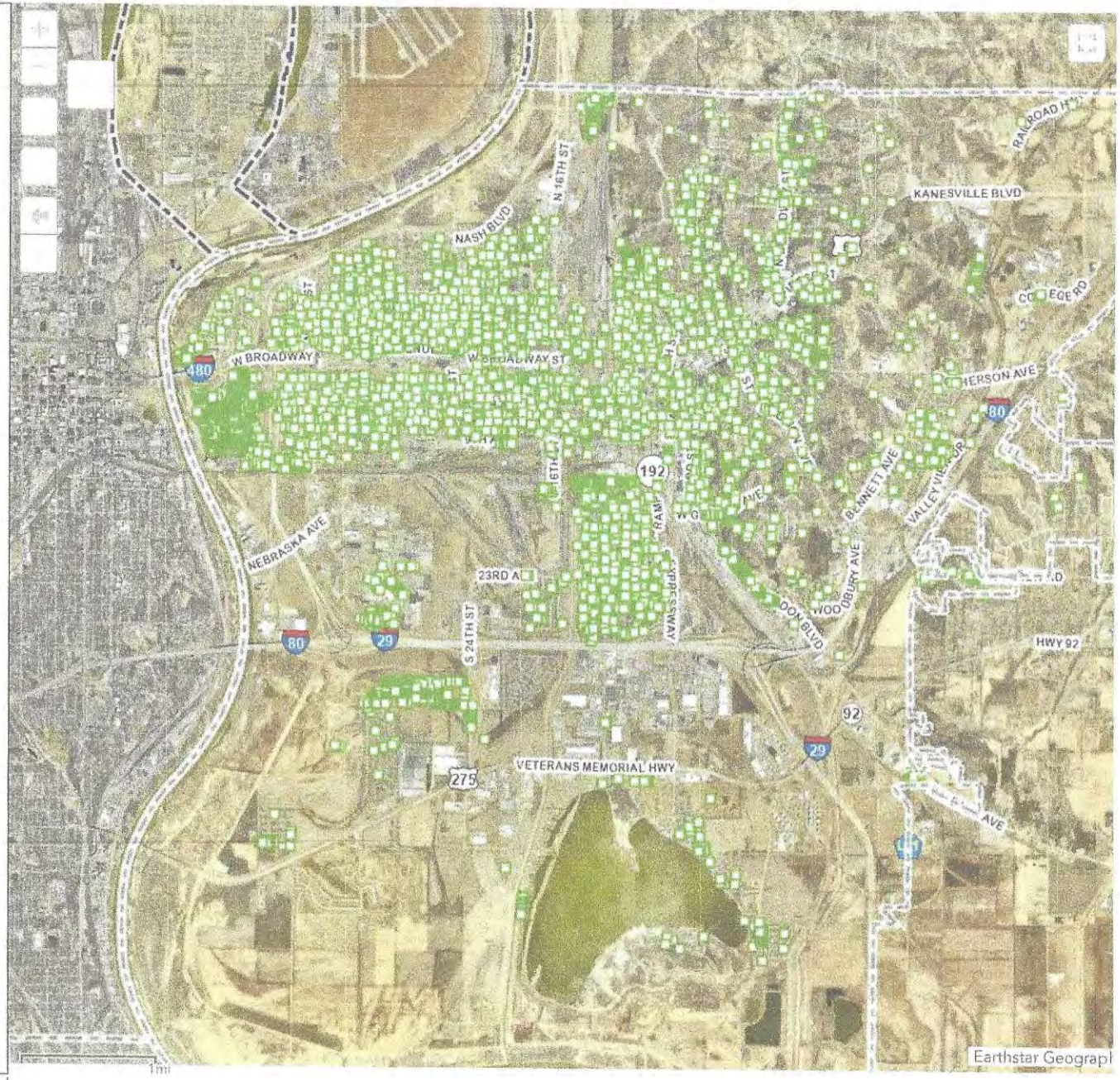
- Prairie blazingstar 0.8 oz./ ac
- Swamp milkweed 1 oz./ ac
- Yellow coneflower 4 oz./ ac
- New England aster 0.3 oz./ ac
- Blackeyed susan 3 oz./ ac
- Canada milkvetch 0.8 oz./ ac
- Compass plant 0.5 oz./ ac
- White wild indigo 0.5 oz./ ac
- Stiff goldenrod 0.3 oz./ ac
- Purple prairie clover 4 oz./ ac
- Ohio spiderwort 0.8 oz./ ac
- Showy tick trefoil 0.5 oz./ ac
- Hoary vervain 0.5 oz./ ac
- Goldenrod 0.8 oz./ ac

Parks Department

Layer List

Layers

- Wayfinding Features
- Future Park & Trail Features
- Municipal Boundaries
- Fairmount Park Trails
- Frisbee Golf Features
- City Growth Area Features
- Tree Assets
- Asset Work Orders
- Zones
- Census 2018 Median Family Income
- 2019 Asset Assessment
- 2019 Trail Assessment
- Trail Features
- Trail System - Vincent
- Contours
- Inspection Features
- Mowing & Snow Removal Features

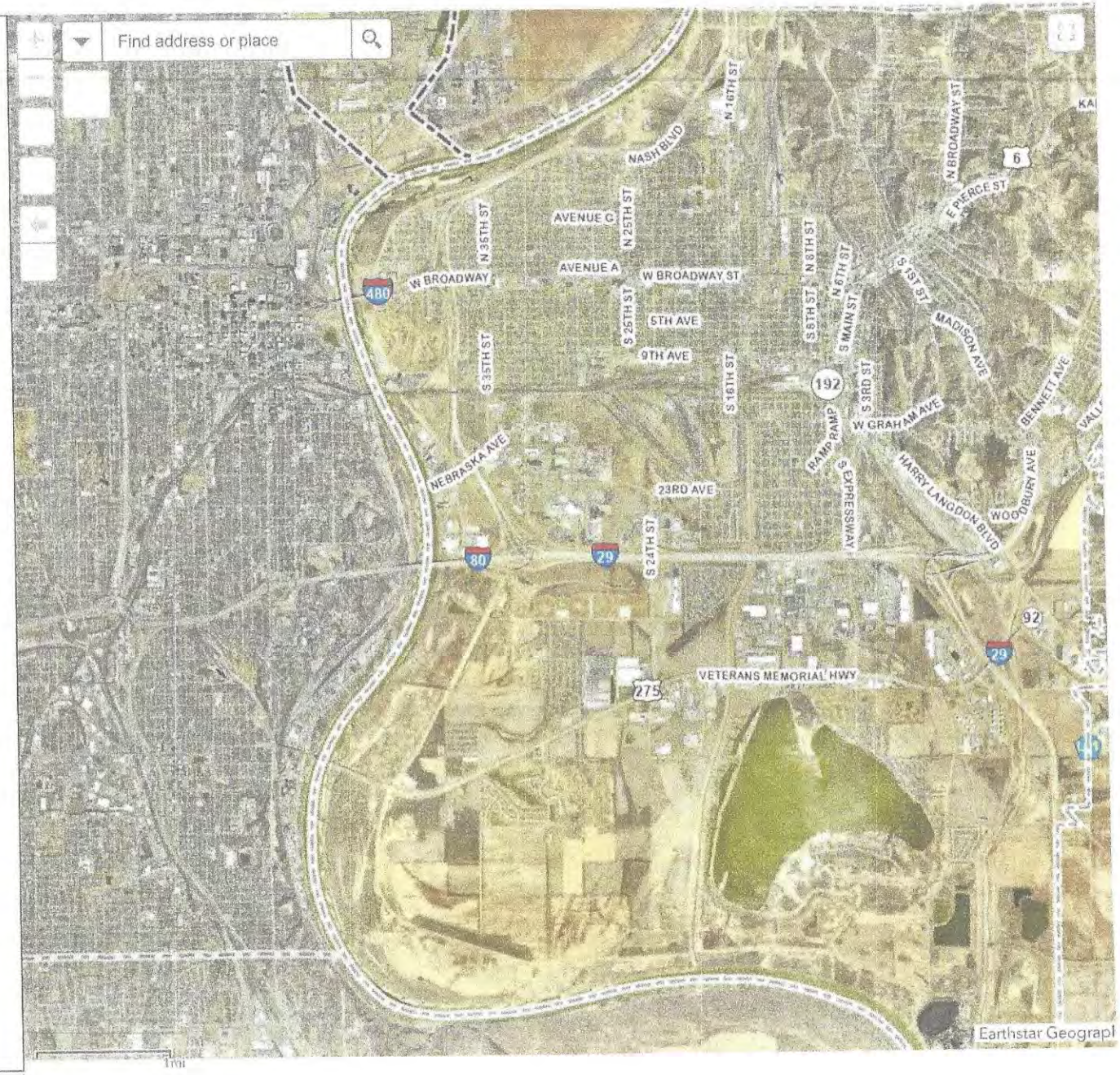


City Owned Property

Layer List

Layers

- Municipal Boundaries
- Contours
- City Owned Property
- Flood Hazard Features
- Mowing & Snow Removal Features
- Zoning District Boundaries
- Street Centerline Features
- County Base Layers
- World Imagery
- Public Works Maintenance Costs
- Property Maintenance
- 657A Process
- Legal Department Property Costs
- Building Division Maintenance Costs
- Offers To Buy

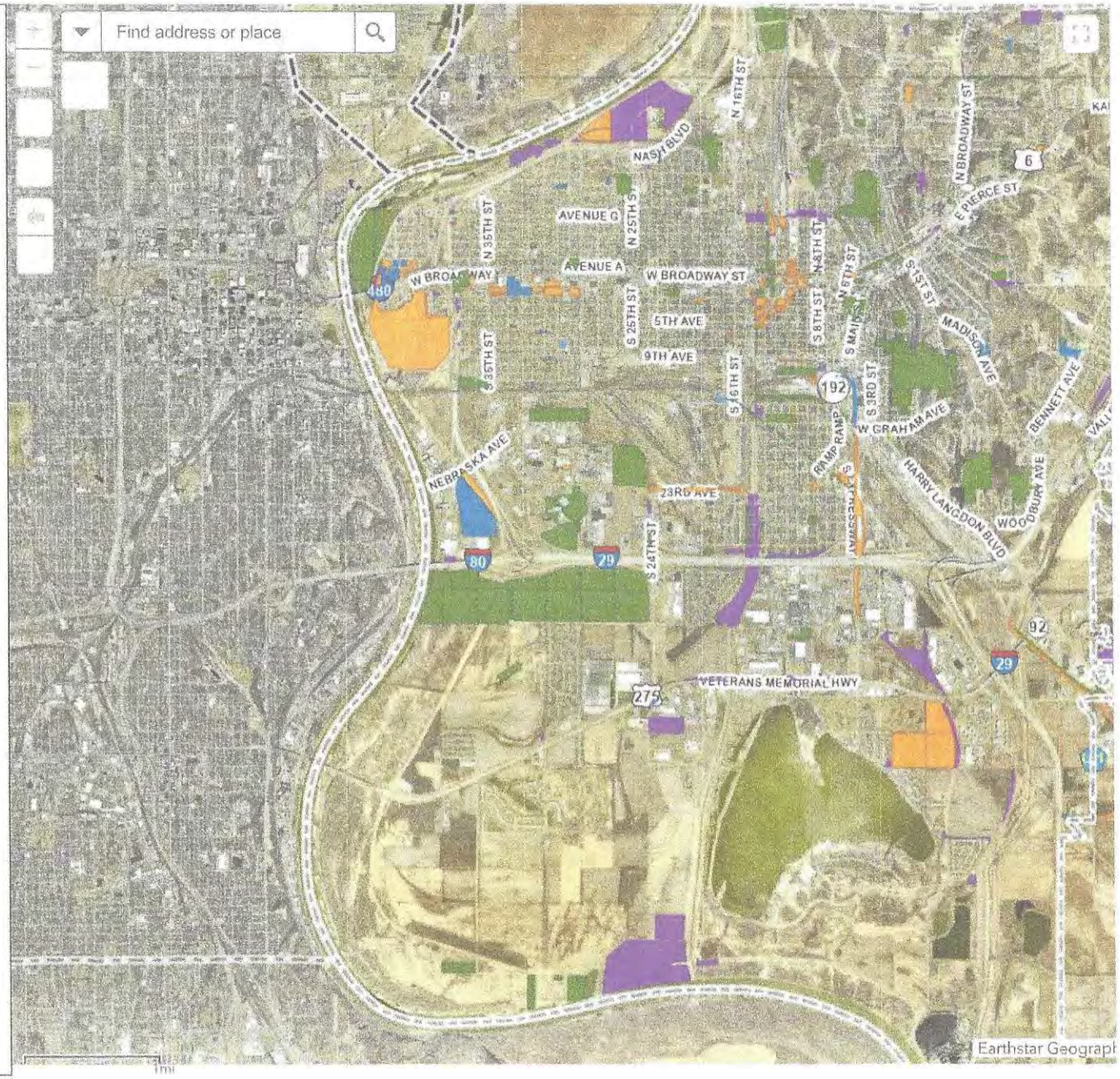


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TREES & SHRUBS NATIVE IN IOWA

Common Name	Scientific Name	Mature Height		Growth Rate	Shade Tolerance	Natural Habitat / Soils / Sites	Uses / Limitations
		ft	m				
Pin Cherry	*Prunus pennsylvanica*	30	9	fast	very intolerant	woods; clearings	short lived
Pin Oak	*Quercus palustris*	60	18	slow	intolerant	alluvial woods	landscape tree; spacious / chlorosis
Post Oak	*Quercus stellata*	30	9	slow	intolerant	dry, open, upland woods; SE Iowa	limited availability
Prairie Crabapple	*Malus ioensis*	22	7	medium	intolerant	dry, bushy uplands; open woods; prairie remnants	ornamental / highly resistant to diseases
Prickly Ash	*Zanthoxylum americanum*	12	4	slow	intolerant	edges; upland woods; openings	
Pussy Willow	*Salix discolor*	15	5	fast	intolerant	streambanks; low prairies; marsh edges	great riparian plant
Quaking Aspen	*Populus tremuloides*	40	12	fast	very intolerant	open woods; moist praries; woodland edges	background planting
Red Maple	*Acer rubrum*	50	15	medium	tolerant	wooded bluffs	excellent shade tree
Red Mulberry	*Morus rubra*	35	11	medium	tolerant	moist, alluvial woods; wooded slopes	fruit litter
Red Oak	*Quercus rubra*	70	21	medium	intermediate	moist, upland woods	excellent shade tree
Red-Osier Dogwood	*Cornus stolonifera*	8	2	fast	tolerant	shores; lake & pond margins; fens	great for wildlife
River Birch	*Betula nigra*	80	24	fast	intolerant	alluvial woods; stream margins	leaf miner; moisture stress; short service life
Rock Elm	*Ulmus thomasii*	70	21	medium	intermediate	bases of moist, wooded slopes	dutch elm disease
Rough-Leaf Dogwood	*Cornus drummondii*	8	2	medium	tolerant	moist woods; along streams; woodland borders	
Roundleaf Dogwood	*Cornus rugosa*	8	2	medium	tolerant	rich, upland woods; N-facing, wooded slopes	limited availability
Roundleaf Serviceberry	*Amelanchier sanguinea*	20	6	medium	tolerant	sandstone ledges; algific slopes	very attractive
Sandbar Willow	*Salix interior*	30	9	fast	intolerant	streambanks; sandbars; alluvial bottoms	riparian areas
Saskatoon Serviceberry	*Amelanchier alnifolia*	18	5	medium	tolerant	thickets; margin of lakes	very attractive
Shagbark Hickory	*Carya ovata*	70	21	slow	intermediate	dry, upland woods; bluffs; statewide	nuts; limited availability
Shellbark Hickory	*Carya laciniosa*	70	21	slow	very tolerant	alluvial woods; southern Iowa	limited availability
Shingle Oak	*Quercus imbricaria*	45	14	slow	intermediate	bottomlands; dry hillsides; southern Iowa	street tree; for southern Iowa
Shining Willow	*Salix lucida*	25	8	fast	intolerant	low, moist ground; lakeshores; streambanks; fens	riparian areas

TREES & SHRUBS NATIVE IN IOWA

Common Name	Scientific Name	Mature Height		Growth Rate	Shade Tolerance	Natural Habitat / Soils / Sites	Uses / Limitations
		ft	m				
Showy Mountainash	*Sorbus decora*	20	6	medium	intolerant	hedges; woodland margins; sandstone outcrops	limited availability
Silky Dogwood	*Cornus obliqua*	10	3	medium	tolerant	wet thickets; low woods; wet prairies	great for wildlife
Silver Maple	*Acer saccharinum*	120	36	very fast	tolerant	alluvial woods; riparian areas	fast growing shade tree; consider cultivars
Slippery Elm	*Ulmus rubra*	60	18	medium	tolerant	wooded slopes & bluffs	susceptable to dutch elm disease
Smooth Sumac	*Rhus glabra*	15	5	medium	intermediate	woodland openings; edges; disturbed areas	great fall color
Speckled Alder	*Alnus incana*	30	9	medium	intermediate	sandy soil in alluvial woods; streamsides; seeps	
Staghorn Sumac	*Rhus typhina*	20	6	medium	intermediate	dry openings in woods; edges; rocky slopes	great fall color
Sugar Maple	*Acer saccharum*	60	18	medium	very tolerant	moist woods; wooded slopes	excellent shade tree
Swamp White Oak	*Quercus bicolor*	70	21	slow	intermediate	alluvial woods	excellent shade tree
Sycamore	*Platanus occidentalis*	100	30	fast	intermediate	alluvial woods	shade tree / anthracnose; lace bug
White Ash	*Fraxinus americana*	70	21	medium	intolerant	upland woods	excellent shade tree / drought; ash decline
White Oak	*Quercus alba*	100	30	slow	intermediate	uplands woods; dry slopes	shade tree / sensitive to compaction & root damage
White Pine	*Pinus strobus*	90	27	medium	intermediate	sandy or rocky, steep, wooded slopes & ledges	works best in eastern half of Iowa
Wild Plum	*Prunus americana*	20	6	fast	very intolerant	fencerows; woodland edges; open woods	great for wildlife
Witchhazel	*Hamamelis virginiana*	10	3	medium	intermediate	moist, wooded, N-facing slopes	
Yellow Birch	*Betula alleghaniensis*	100	30	medium	intermediate	N-facing, rocky, wooded slopes	

adapted from : Iowa State University Forestry Extension: Trees & Shrubs Native to Iowa; Ames, IA, 2001

Michael A. Dirr: Manual of Woody Landscape Plants; Their Identification, Ornamental Characteristics, Culture, Propagation and Uses; Athens, GE, 1990

TREES & SHRUBS NATIVE IN IOWA

Common Name	Scientific Name	Mature Height		Growth Rate	Shade Tolerance	Natural Habitat / Soils / Sites	Uses / Limitations
		ft	m				
Butternut	*Juglans cinerea*	60	18	slow	intolerant	moist, wooded slopes; alluvial woods	nuts; shade tree / butternut decline
Canada Plum	*Prunus nigra*	20	6	medium	intolerant	steep, N- or E-facing, wooded slopes	limited availability
Canadian Yew	*Taxus canadensis*	3	1	slow	tolerant	rocky bluffs; moist wooded slopes	
Chinkapin Dwarf Oak	*Quercus prinoides*	20	6	slow	intolerant	dry ridges; rocky bluffs	limited availability
Chinkapin Oak	*Quercus muhlenbergii*	50	15	slow	intolerant	exposed bluffs; rocky slopes	excellent shade tree for southern half of Iowa
Chokecherry	*Prunus virginiana*	20	6	medium	very intolerant	open woods; woodland borders; rocky bluffs	extremely hardy / insects; black knot; short service life
Cockspur Hawthorn	*Crataegus crus-galli*	20	6	slow	intermediate	open, upland woods; pastures	attractive; thornless
Common Juniper	*Juniperus communis*	10	3	medium	intolerant	dry, wooded bluffs; rocky slopes	
Common Pawpaw	*Asimina triloba*	25	8	medium		wooded alluvium; wooded slopes: limited to southern Iowa	
Common Persimmon	*Diospyros virginiana*	40	12	slow	very tolerant	sandstone bluffs	best in southern Iowa
Cottonwood	*Populus deltoides*	100	30	very fast	very intolerant	moist habitats; ususally on alluvium; riparia areas	fast growing tree; riparian areas
Coyote Willow	*Salix exigua*	25	8	fast	intolerant	streambanks; sandbars; alluvial bottoms	
Dotted Hawthorn	*Crataegus punctata*	25	8	slow	intermediate	open woods; pastures	adverse sites / rust; mildew; fruit litter
Downy Hawthorn	*Crataegus mollis*	30	9	slow	intermediate	open, upland woods; sandy alluvium; openings	rust problem
Downy Serviceberry	*Amelanchier arborea*	25	8	medium	tolerant	moist, wooded slopes; rocky, wooded slopes	very attractive
Eastern Red Cedar	*Juniperus virginiana*	40	12	medium	very intolerant	dry, open woods; rocky bluffs; pastures	great windbrake tree
Eastern Redbud	*Cercis canadensis*	15	5	slow	tolerant	wooded ravines; wooded bluffs; alluvium; southern Iowa	street tree
Eastern Wahoo	*Euonymus atropurpureus*	15	5	medium	tolerant	moist woods	very attractive
Elderberry	*Sambucus canadensis*	8	2	fast	intermediate	edges of moist woods; shorelines; fencerows	
Fleshy Hawthorn	*Crataegus succulenta*	30	9	slow	intermediate	open woods; woodland edges	limited availability
Gray Dogwood	*Cornus racemosa*	10	3	medium	tolerant	upland woods	great for wildlife
Green Ash	*Fraxinus pennsylvanica*	60	18	fast	tolerant	alluvial or low, moist woods	good shade tree

TREES & SHRUBS NATIVE IN IOWA

Common Name	Scientific Name	Mature Height		Growth Rate	Shade Tolerance	Natural Habitat / Soils / Sites	Uses / Limitations
		ft	m				
Hackberry	*Celtis occidentalis*	60	18	slow	intermediate	moist low woods; open, disturbed soil	shade tree / nipple gall; powdery mildew
Heart-Leaved Willow	*Salix rigida*	10	3	fast	very intolerant	streambanks; wet lowlands; ditches	limited availability
Honeylocust	*Gleditsia triacanthos*	70	21	fast	intolerant	alluvial woods; old pastures; sandy prairies	plazas; parking lots / insects; *Thyronectria*; thorns
Hoptree / Water Ash	*Ptelea trifoliata*	15	5	slow	intermediate	along streams; rocky bluffs; sandy habitats	background shrub
Hortulan Plum	*Prunus hortulana*	15	5	medium	very intolerant	road cuts; low woods	limited availability
Inland Serviceberry	*Amelanchier interior*	20	6	medium	tolerant	dry sandstone ledges	very attractive
Ironwood / Hophornbeam	*Ostria virginiana*	30	9	slow	tolerant	upland wood; wooded slopes	shade tree / salt-sensitive
Kentucky Coffeetree	*Gymnocladus dioicus*	60	18	medium	intolerant	moist, wooded ravines; alluvium	shade tree / free of diseases
Margaret's Hawthorn	*Crataegus margaretta*	30	9	slow	intermediate	upland woods; slopes; open alluvial woods	limited availability
Meadow Willow	*Salix petiolaris*	10	3	fast	very intolerant	moist prairie remnants; marsh edges; fens	limited availability
Mexican Plum	*Prunus mexicana*	20	6	medium	very intolerant	roadsides; fencerows	limited availability
Missouri River Willow	*Salix eriocephala*	40	12	fast	intolerant	streambanks; wet lowlands; ditches	
Mountain Maple	*Acer spicatum*	20	6	slow	tolerant	steep, moist, N- & E-facing wooded slopes	limited availability
Nannyberry	*Viburnum lentago*	15	5	medium	intermediate	upland woods	great for wildlife
Northern Pin Oak	*Quercus ellipsoidalis*	50	15	medium	intolerant	open, sandy, upland woods	excellent shade tree
Ohio Buckeye	*Aesculus glabra*	50	15	medium	tolerant	moist or sandy, lowland woods	leaf scorch
Pagoda Dogwood	*Cornus alternifolia*	20	6	slow	tolerant	moist, upland woods	background tree
Paper Birch	*Betula papyrifera*	70	21	fast	intolerant	steep, sheltered, rocky bluffs; N-facing slopes; limited to NE Iowa	borer; problems off site
Peachleaf Willow	*Salix amygdaloides*	40	12	fast	intolerant	along streams	riparian areas
Pear Hawthorn	*Crataegus calpodendron*	30	9	slow	intermediate	prairie openings in upland woods; edges	limited availability
Pecan	*Carya illinoensis*	70	21	slow	intolerant	alluvial woods; SE Iowa	nuts
Pignut Hickory	*Carya glabra*	70	21	slow	intermediate	dry, upland woods	reforestation / limited availability

TREES & SHRUBS NATIVE IN IOWA

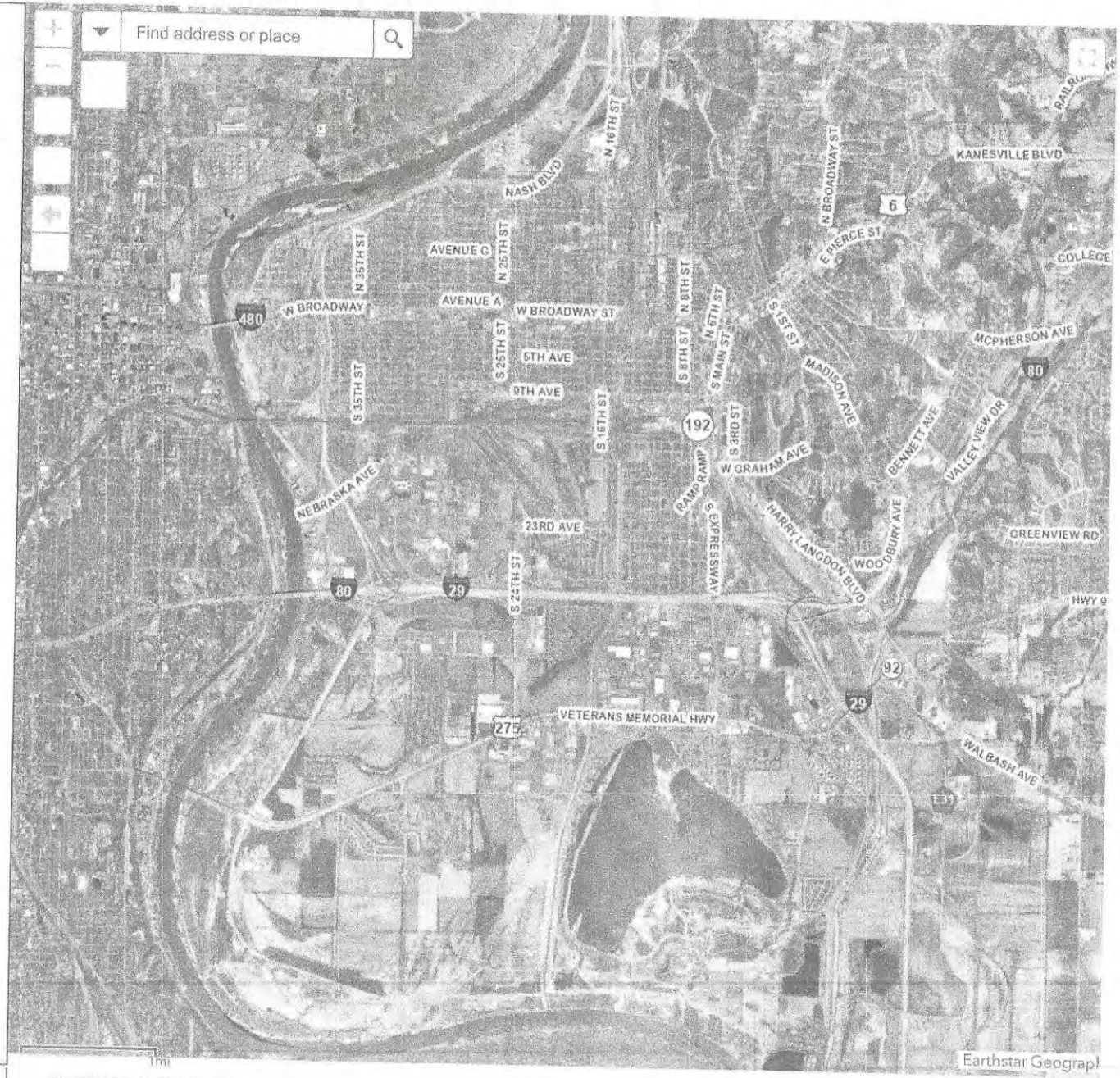
Common Name	Scientific Name	Mature Height		Growth Rate	Shade Tolerance	Natural Habitat / Soils / Sites	Uses / Limitations
		ft	m				
American Basswood	*Tilia americana*	80	24	fast	tolerant	moist, upland woods & slopes; protected bluffs & ravines	shade tree; spacious / intolerant of salt
American Elm	*Ulmus americana*	70	21	medium	intermediate	woods; especially alluvial flats	susceptable to dutch elm disease
American Hazelnut	*Corylus americana*	15	5	medium	intermediate	woodland openings and borders	great for wildlife
American Hornbeam	*Carpinus caroliniana*	35	11	slow	very tolerant	moist, but sufficiently drained	small spaces; shady places / relatively disease-free
Balsam Fir	*Abies balsamea*	50	15	slow	very tolerant	steep, N-facing bluffs, limited to extreme NEIowa	limited sites
Balsam Poplar	*Populus balsamifera*	50	15	fast	very intolerant	moist woods; woodland edges	
Beaked Hazelnut	*Corylus cornuta*	6	2	medium	intermediate	N-facing wooded slopes; algific talus slopes	limited availability
Bebb Willow	*Salix bebbiana*	25	8	fast	intolerant	moist ground; N-facing talus slopes; fens	limited availability
Bigtooth Aspen	*Populus grandidentata*	45	14	fast	very intolerant	moist to dry; usually upland woods	
Bitternut Hickory	*Carya cordiformis*	70	21	slow	intolerant	upland woods; wooded slopes; bluffs	shade tree; reforestation / limited availability
Black Ash	*Fraxinus nigra*	50	15	medium	intolerant	moist, wooded slopes; alluvium	limited availability
Black Cherry	*Prunus serotina*	50	15	medium	intolerant	moist, wooded slopes; upland woods	needs full sun
Black Maple	*Acer nigrum*	60	18	medium	very tolerant	moist woods; wooded slopes	excellent shade tree on well drained sites
Black Oak	*Quercus velutina*	60	18	medium	intermediate	upland woods; sandy, alluvial flats	reforestation
Black Walnut	*Juglans nigra*	80	24	fast	intolerant	moist woodlands; especially alluvial woods	great timber / wildlife tree; good nut production
Black Willow	*Salix nigra*	50	15	fast	very intolerant	streambanks; lake margins; alluvial woods	riparian areas
Blackhaw Viburnum	*Viburnum prunifolium*	12	4	slow	intermediate	woodland borders	great low growing tree
Blackjack Oak	*Quercus marilandica*	35	11	slow	intermediate	upland woods; SE Iowa	limited availability
Blue Ash	*Fraxinus quadrangulata*	40	12	medium	intermediate	rocky bluffs	shade tree; limited availability
Boxelder	*Acer negundo*	50	15	fast	tolerant	alluvial woods; moist, disturbed areas; riparian areas	riparian areas / short-lived; storms
Buffaloberry	*Sheperdia argentea*	8	2	medium	intermediate	dry uplands; loess bluffs; prairie-woodland edges	
Bur Oak	*Quercus macrocarpa*	100	30	slow	intermediate	dry uplands; slopes	excellent long term shade tree; spacious

Parks Department

Layer List

Layers

- Wayfinding Features
- Future Park & Trail Features
- Municipal Boundaries
- Fairmount Park Trails
- Frisbee Golf Features
- City Growth Area Features
- Tree Assets
- Asset Work Orders
- Zones
- Census 2018 Median Family Income
- 2019 Asset Assessment
- 2019 Trail Assessment
- Trail Features
- Trail System - Vincent
- Contours
- Inspection Features
- Mowing & Snow Removal Features



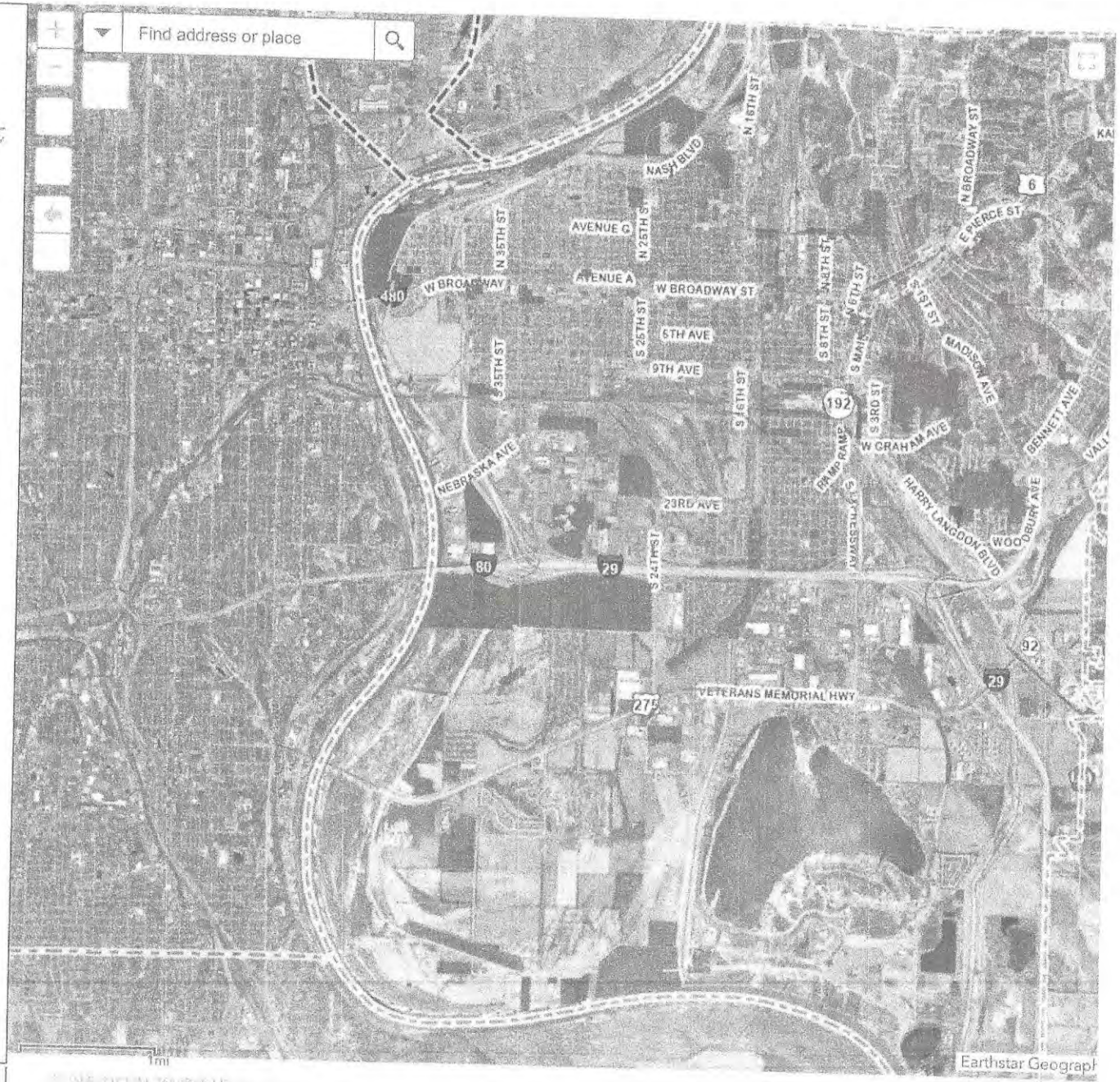
https://gis.councilbluffs-ia.gov/ParksDept-WebApp/

City Owned Property

Layer List

Layers

- Municipal Boundaries
- Contours
- City Owned Property
- Flood Hazard Features
- Mowing & Snow Removal Features
- Zoning District Boundaries
- Street Centerline Features
- County Base Layers
- World Imagery
- Public Works Maintenance Costs
- Property Maintenance
- 657A Process
- Legal Department Property Costs
- Building Division Maintenance Costs
- Offers To Buy



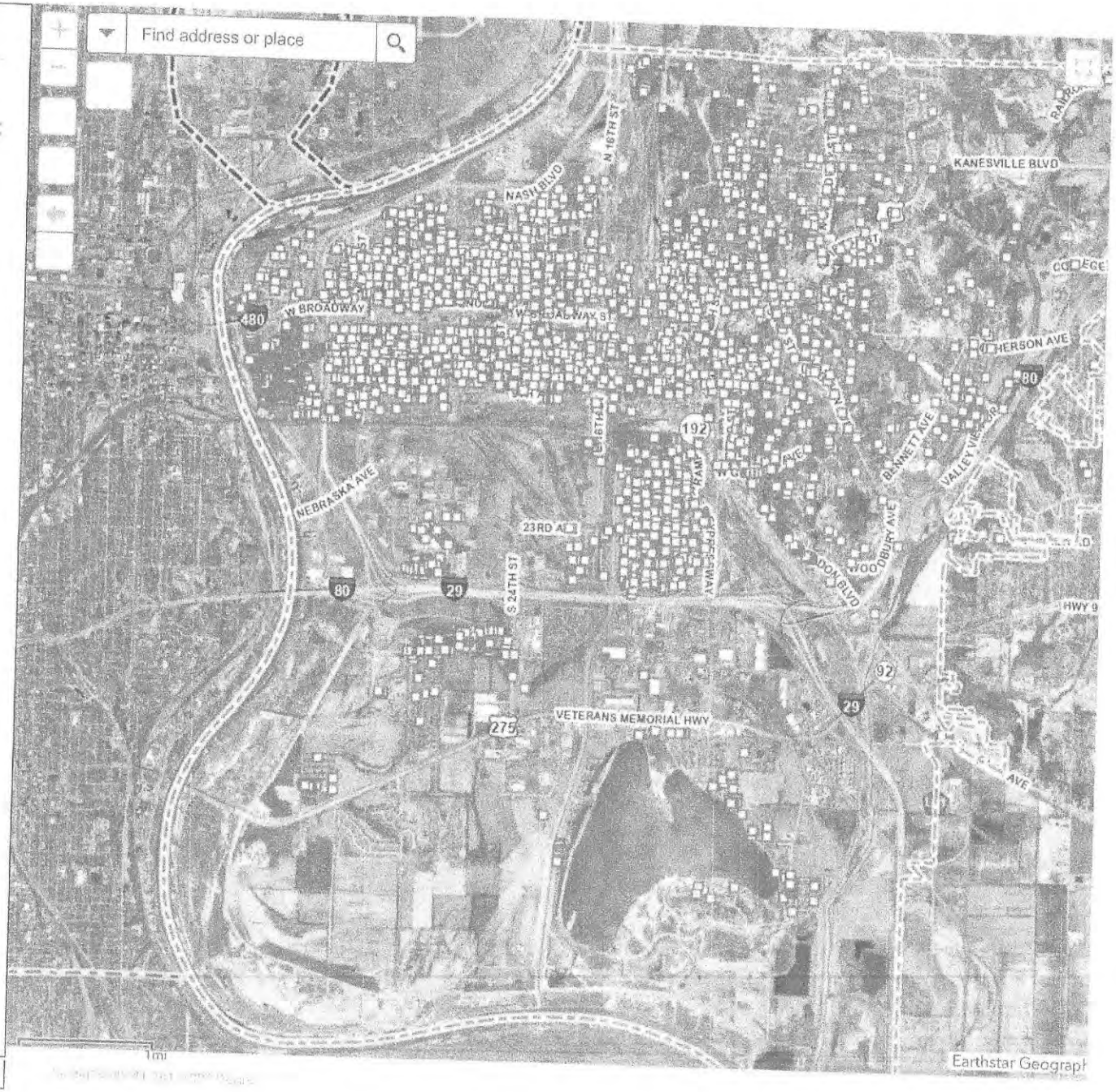
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Parks Department

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