

# Friends of the Mississippi River Old Mill Park (OMP) Restoration 2012 - Present

- Partnership with Hastings Parks Department
- FMR wrote natural resource management plan in 2012 (donated).
- In 2012, FMR was awarded a \$21,500 grant from MN Legislature (Environment and Natural Resource Trust Fund) to begin habitat restoration.
- A second grant of \$6,700 was awarded in 2016.
- Project began in 2013
- Contract ends June 30, 2018

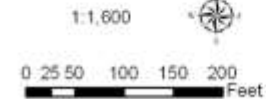


# Prairie Restoration & Woodland Management

- 3 acres new prairie restoration
- 4 acres existing prairie/savanna management
- 3 acres woodland management
- Demonstration planting at entrance



Data sources: Contours, DNR data dell; 2011 aerial- Dakota County GIS



- Management Goals
- Unpaved trails
  - 10-ft contours
  - Lawn/picnic-Unit A
  - Oak savanna-Units I,III
  - Oak woodlands-Unit II,VI
  - Savanna - existing remnant-Unit IV
  - Modified park boundary

# 3-acres Woodland Management

Before



Understory full of invasive shrubs (buckthorn and honeysuckle) inhibits native plant and animal diversity.

After



After removal - Woodland understory free of invasive shrubs.

# Savanna Restoration at OMP

Before

After



After weedy plants have been sprayed and burned in preparation for seeding with native prairie species.



Clearwing moth and bumblebee vie for same bergamot flower!

Three years after seeding - Invasive plants are replaced by native grasses and wildflowers, providing bird, pollinator, and wildlife habitat and aesthetic beauty. Minimal maintenance required.

# Prairie Restoration at OMP

Before



Turf grass around parking lot and picnic table, 2015.

After



Turf grass is replaced by native grasses and wildflowers. 2016.

# Entry Planting at OMP

Before

After



Entry area in spring 2014 – mowed turf.

Hastings High school students planted 1,300 plugs in spring 2014. Shown – summer 2015.

# Old Mill Park



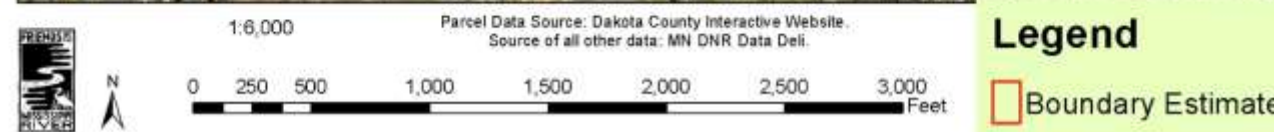
A large population of state-threatened kittentail survives at the park. FMR monitors the population. Non-designated trails threaten to destroy them.



Prescribed fire is used to manage both woodland and prairie/savanna areas.

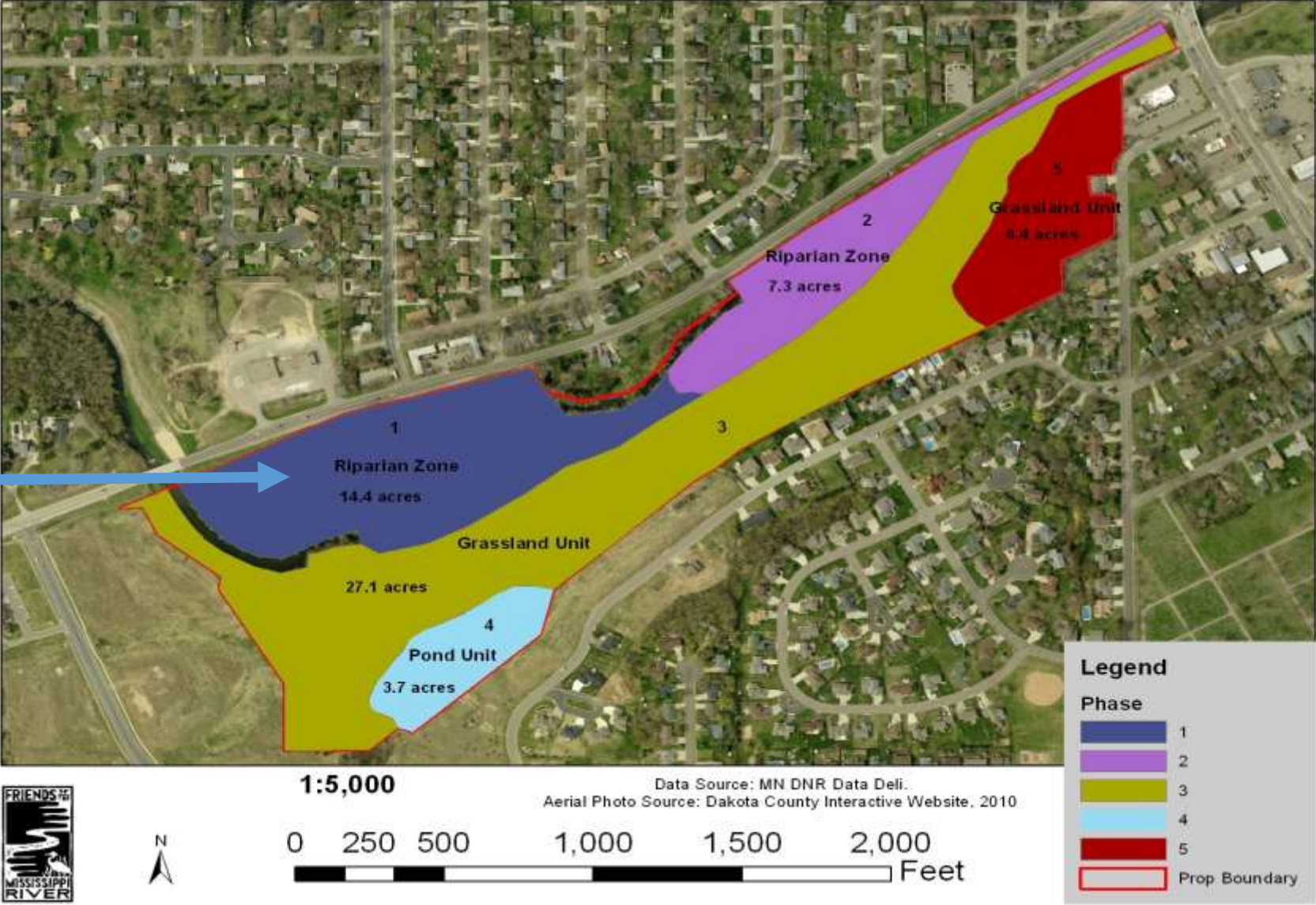
# Friends of the Mississippi River Vermillion Linear Park Restoration Phase I: 2014 - Present

- Partnership with Hastings Parks and Rec Department
- FMR wrote natural resource management plan in 2012
- In 2014, FMR was awarded a \$40,000 grant from MN Legislature to conduct Phase I of habitat restoration at VLP
- Project began in 2015
- Contract ends June 30, 2018





# Phase I: Forest and Prairie Restoration



# Forest Restoration at VLP

Before



Understory full of invasive shrubs (buckthorn and honeysuckle) inhibits recreation and decreases native diversity.

After



Understory planted with native shrubs and wildflowers. Notice the open understory free of invasive shrubs.

# Prairie Restoration at VLP

Before



Invasive smooth brome and annual weeds dominate and provide limited habitat and aesthetic beauty. Mowing and other maintenance required.

After



Invasive plants are replaced by native grasses and wildflowers, providing bird, pollinator, and wildlife habitat and aesthetic beauty. Minimal maintenance required.

# Restored vs Un-Restored Habitat

Provides little to no habitat.

Short root systems offer poor soil stabilization; erosion and water quality issues.

Few (if any) blooms during the growing season.

Low aesthetic beauty



Provides habitat for:

Birds  
Pollinators  
Small mammals

Deep root systems stabilize soils and prevent erosion.

Blooms throughout the growing season

High aesthetic beauty



# Hastings High School

## Yearly habitat restoration – 2014-Present



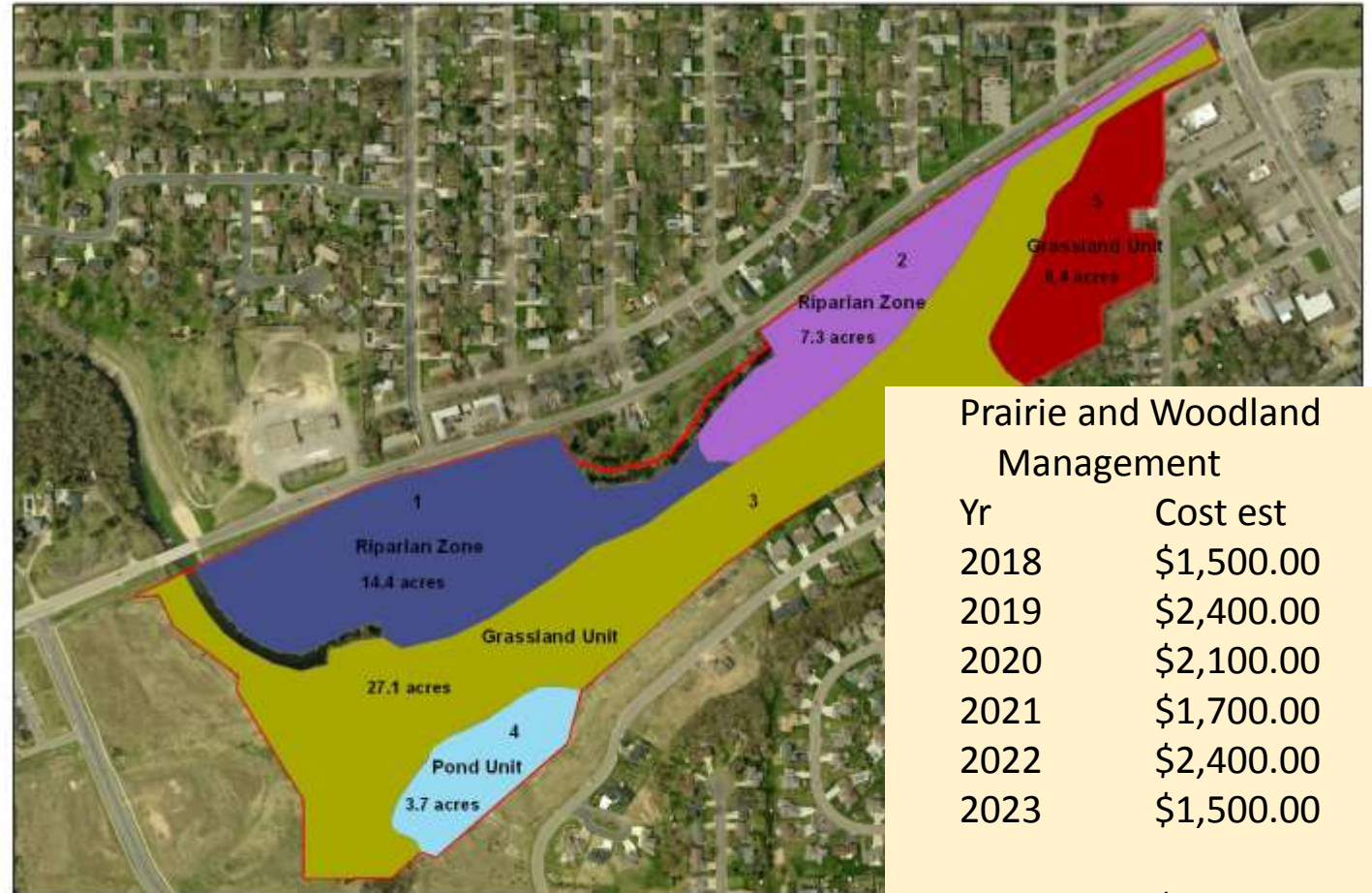
2016. Planting trees, shrub, wildflowers, and grasses where buckthorn had been removed the year before.



2017. Removing invasive burdock before planting native shrubs and wildflowers into woodland pockets.

# Long Term Maintenance at VLP

- Spot-treat prairie weeds
- Remove non-native woody plants as they get larger
- Prescribed burns every 3-5 years on a portion of the site
- Control burdock and other forest edge invaders, and garlic mustard and other forest invaders
- Monitor forest and prairie for new issues



Yr	Cost est
2018	\$1,500.00
2019	\$2,400.00
2020	\$2,100.00
2021	\$1,700.00
2022	\$2,400.00
2023	\$1,500.00
<b>6-yr total</b>	<b>\$11,600</b>



1:5,000

Data Source: MN DNR Data  
Aerial Photo Source: Dakota County Interactive Website, 2019



# Long-Term Maintenance at OMP

- Spot-treat prairie/savanna weeds
- Remove non-native woody plants as they get larger
- Thin out non-oak trees as needed
- Prescribed burns every 3-5 years on a portion of the site
- Monitor and protect kittentail population
- Manage non-designated trails to protect prairie, nesting wildlife, rare plants, prevent erosion etc.



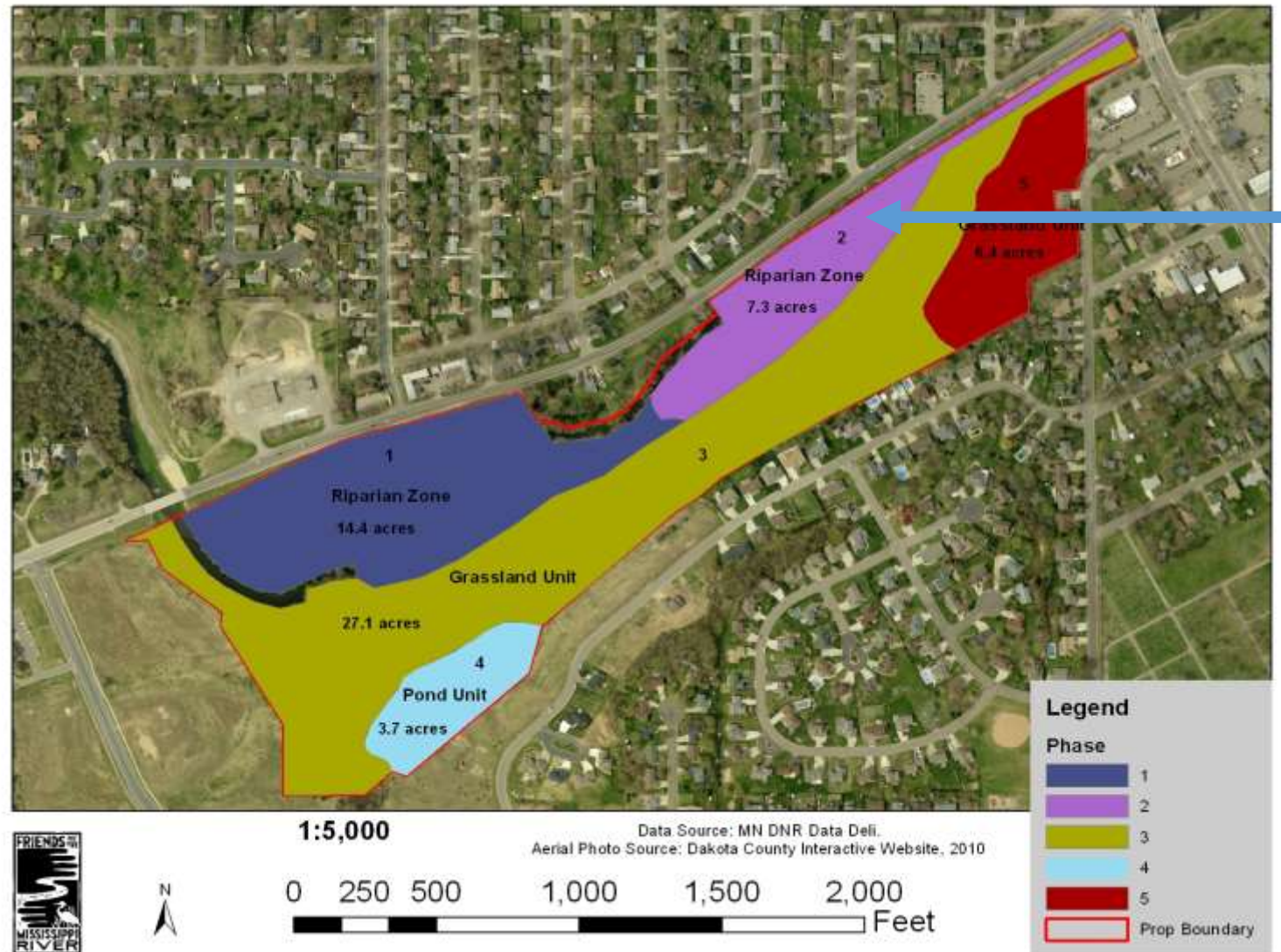
## Savanna and Woodland Management

Yr	Cost est
2018	\$1,700.00
2019	\$5,400.00
2020	\$2,180.00
2021	\$1,700.00
2022	\$3,300.00
2023	\$4,205.00
6-yr total	\$18,485.00



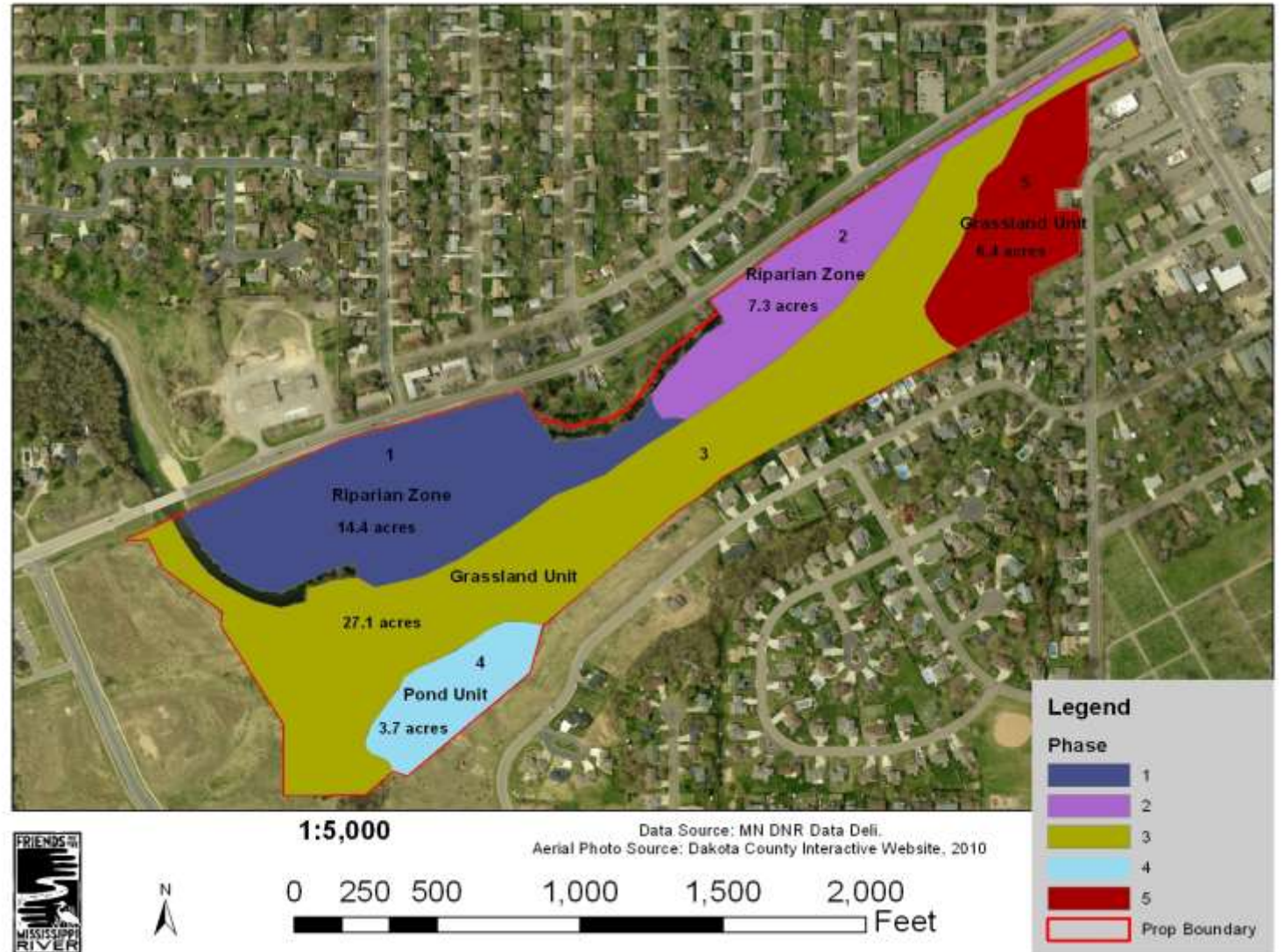
# Phase II – Forest and Prairie Restoration

- Extension of Phase I
- 7.3 additional acres of forest and prairie
- Funded by a \$30,100 grant from the Conservation Partners Legacy Grant Program
  - \$3,000 match
- Planned start date of May 2018
- Completion by June 30, 2020



# Future Phases

- Phases III-IV
- Concurrent restoration
- Grassland to prairie restoration
  - ~30 new habitat acres
  - ~\$120,000
- Potentially funded by LSOHC, CPL, City, Foundation dollars
  - Most require some landowner match
- Phase V – Future wish list





# QUESTIONS?

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