

**WESTMINSTER HILLS OPEN SPACE  
AREA MANAGEMENT PLAN  
CURRENT CONDITIONS REPORT**

**November 2023**

# MANAGEMENT PLAN GOALS

“The objective of the open space program is to promote quality of life for citizens of Westminster through the preservation and protection of the quality of the natural environment” -*W.M.C 13-5-1*



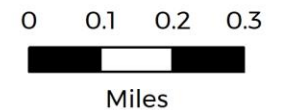
1. Conserve Natural Characteristics of the Area
2. Protect and Enhance Critical Grassland and Wildlife Habitat
3. Maintain Scenic Qualities
4. Provide for Appropriate Passive Recreational Opportunities



# WESTMINSTER HILLS OPEN SPACE (WHOS) PLAN AREA



Westminster Hills Open Space    Woman Creek Reservation Area    Excluded Area



# WHY ARE WE DOING THIS?

*The Open Space Stewardship plan (OSSP) p 5.1 identified 7 High Priority Area-Specific Open Space Master Plan Needs including:*

## “Westminster Hills Open Space and Dog Park

(Northwest of Simms Boulevard and 100th Avenue)

This expansive 1000+ acre site includes an existing dog off-leash area (approximately 70 acres) as well as areas where dogs are required to be on-leash. The dog off-leash area is very popular and is considered a regional or “destination” facility that attracts users living outside Westminster.

The off-leash dog areas are classified as Transitional landscape. The City should consider developing management similar to that done by Colorado State Parks for Cherry Creek State Park (October 2010) that would provide a specific management direction for the dog-off-leash area including rotating dog off-leash areas with an ongoing revegetation program."



# OPEN SPACE STEWARDSHIP GUIDANCE

## Woman Creek

### Urban Natural Landscape Management Areas

*Urban Natural* landscape parcels include sites that are natural in appearance, accommodate wildlife, and allow people to access non-developed environments. **These sites do not include special features or particularly unique or rare species.**

### Management Strategy

Maintain and enhance a stable, non-erosive, natural, naturalistic landscape including both native and desirable non-native plants, including eradication of noxious weeds.

Encourage public access with formalized trails.

## Westminster Hills

### Transitional Landscape Management Areas

*Transitional* landscape management areas include sites undergoing restoration or sites scheduled for restoration and/or enhancement. This is a **temporary classification** until site improvements are completed, at which time the site can be reclassified as Urban Natural or Sensitive Landscape.

### Management Strategy

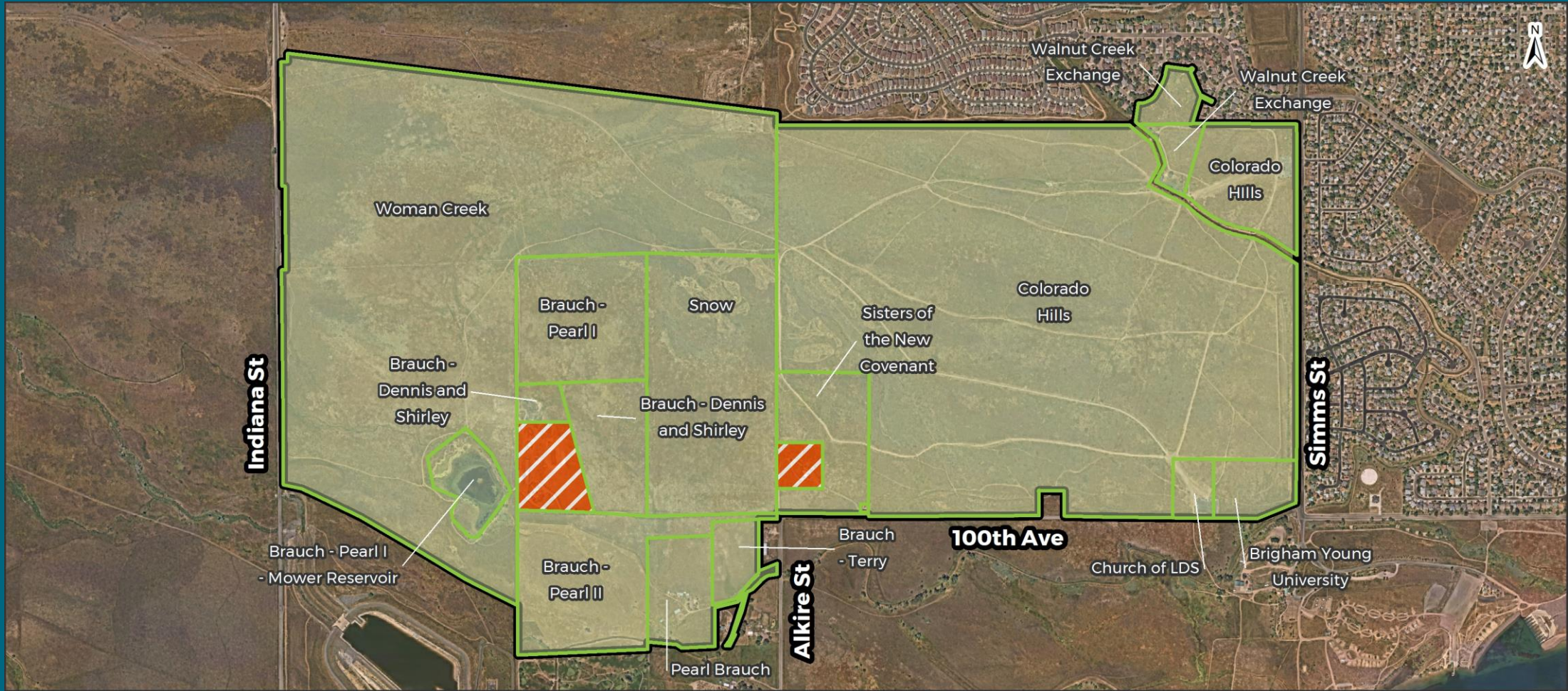
Achieve a stable, non-erosive condition through weed mitigation and revegetation so that these areas can **eventually be reclassified as Urban Natural or Sensitive** as a result of stewardship strategies.

Public access may be temporarily limited.

# ACQUISITION HISTORY



# WHOS AQUISITIONS



Parcel Addition
  Existing Acquisitions
  Project Area
  Excluded Area

**Properties Acquired**  
1988 - 2022



# WHOS ACQUISITIONS

- Preservation of Open Space “would add a buffer to the present eagle nesting activity area at the lake and provides a continuous wildlife corridor between Standley Lake and the large Open Space holdings of Boulder and Boulder County, Jefferson County and the City of Broomfield.”- Brauch Acquisition 1995
- “This is perhaps the only area in or near Westminster, where enough Open Space can be assembled to make visitors feel small, or humble, and to view and understand how much of Colorado appeared to early visitors and residents.”- Dennis and Shirley Brauch Acquisition 1996
- “This acquisition connects enough open land to allow some native prairie plants and wildlife to sustain themselves. Long walks and horse riding are potential uses, along with enjoying the views, photography or solitude.” -Snow Acquisition 1998



# WHOS ACQUISITIONS

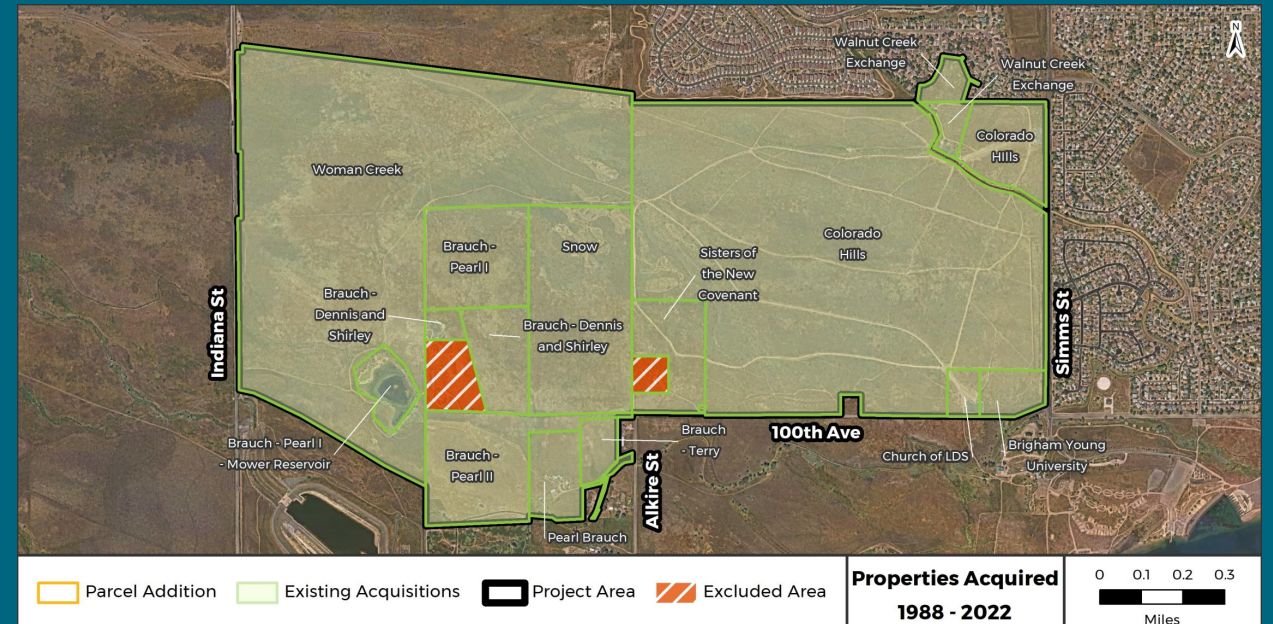
- “Acquisition of a portion of this property will expand the Westminster Hills Open Space and preserve upland short- grass prairie habitat.” -Sisters Acquisition 1998
- The property... is a crucial area to maintain the scenic vistas, wildlife habitat, shortgrass prairie and open feeling in this area.” -LDS Acquisition 2007
- This Acquisition will “preserve land identified as critical wildlife habitat by the United States Fish and Wildlife Service and as a Conservation Study Area in the Jefferson County Master Plan.” -Woman Creek Acquisition 2018

# WHOS ACQUISITIONS

- More than a dozen acquisitions over 3 decades.
- Total investment of over \$11 million.
- More than \$4.5 million in grant and support from partners including Jefferson County, Great Outdoors Colorado, The Trust for Public Lands and The Natural Resource Defense Fund.
- Acquired to meet Open Space Program purposes specifically to preserve and protect the natural environment, spectacular views, and provide passive recreation opportunities.

*“These natural areas, water bodies, tremendous vistas and panoramas, characteristic terrains and native flora and fauna are intended to be preserved and protected for the enjoyment of this and future generations by the judicious use of those sales tax dollars designated for the open space program.”*

*-W.M.C 13-5-1*



# ECOSYSTEM CONDITION



# WESTMINSTER HILLS IS A SHORT GRASS PRAIRIE

- This ecological system once covered most of Colorado east of the mountain front.
- Today, nearly 50% of our historic shortgrass prairie has been converted to agriculture or other uses – **the largest loss of all of Colorado's ecosystems.**
- Many of Colorado's declining animal species are associated with the shortgrass prairie.
- Shortgrass prairie lands are almost all in private ownership.



# SPECIES OF GREATEST CONSERVATION NEED ON WHOS

Species	Common Name	Priority Tier	Status
<i>Lithobates pipiens</i>	Northern Leopard Frog	Tier 1	SC
<i>Athene cunicularia</i>	Burrowing Owl	Tier 1	ST
<i>Zapus hudsonius preblei</i>	Prebles Jumping Mouse*	Tier 1	LT/ST
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Tier 2	SC
<i>Ammodramus savannarum</i>	Grasshopper Sparrow	Tier 2	
<i>Buteo regalis</i>	Ferruginous hawk	Tier 2	SC
<i>Calamospiza melanocorys</i>	Lark Bunting	Tier 2	
<i>Lanius ludovicianus</i>	Loggerhead shrike	Tier 2	
<i>Circus cyaneus</i>	Northern Harrier	Tier 2	
<i>Spiranthes diluvialis</i>	Ute Ladies Tress*		LT/ST
<i>Danaus plexippus plexippus</i>	Monarch Butterfly	**	LE* status warranted

Legend: Federal Listing: LT listed Threatened; State Listing: ST – state threatened; SC – Special Concern.

Status Per Colorado's 2015 State Wildlife Action Plan (SWAP) \*habitat present not observed \*\*not currently in SWAP



Ferruginous Hawk



# BURROWING OWLS



- Due to a decline in numbers and habitat loss, burrowing owls are one of Colorado's Species of Greatest Conservation Need and are listed in our state wildlife action plan (SWAP).
- Nesting Burrowing Owls are present on WHOS having been observed there as recently as last week
- Outside of Rocky Flats, the only known nesting location on public land in Jefferson County
- Colorado Parks and Wildlife recommend a 1/8-mile exclusionary buffer and a 1/4-mile protection around nest sites
- Nest exclusively in Prairie dog colonies
- Diurnal activity and ground nesting make them especially susceptible to disturbance from human and canine presence





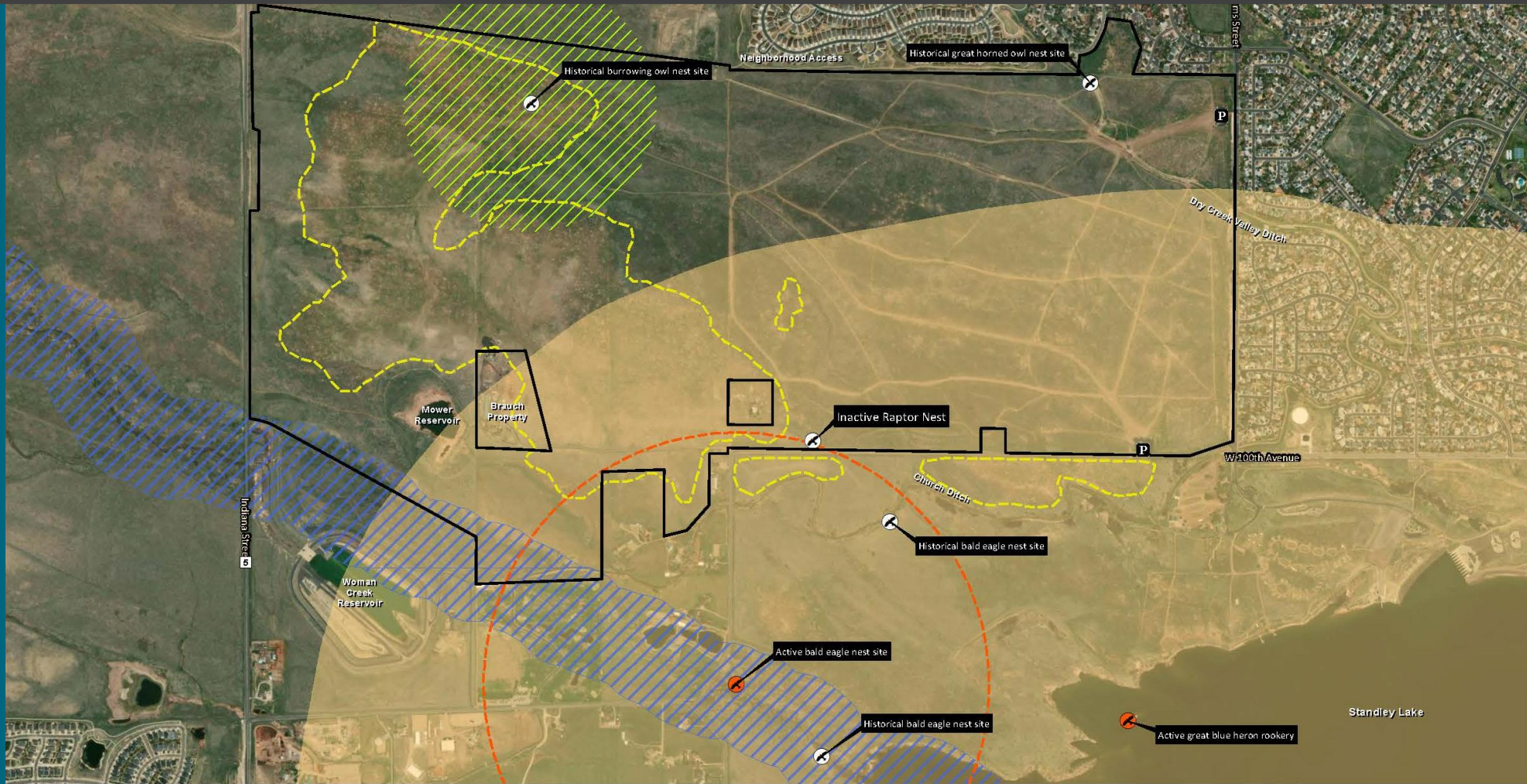
# GRASSLAND BIRDS

- Grassland bird species constitute one of the fastest declining vertebrate populations in North America.
- Over 100 species of birds have been documented at Westminster Hills
- Many of these are ground nesting species, especially vulnerable to disturbance





# WILDLIFE HABITAT



Westminister Hills Open Space Management Plan

- Open Space Boundary
- Active Nest Site
- Historical Nest Site
- Burrowing Owl Active Nest Site
- Aquatic Native Species Conservation Waters
- Active Prairie Dog Colony
- 1/2-mile Bald Eagle Nest Buffer
- Bald Eagle Roost Site

Figure 7  
Wildlife Habitat

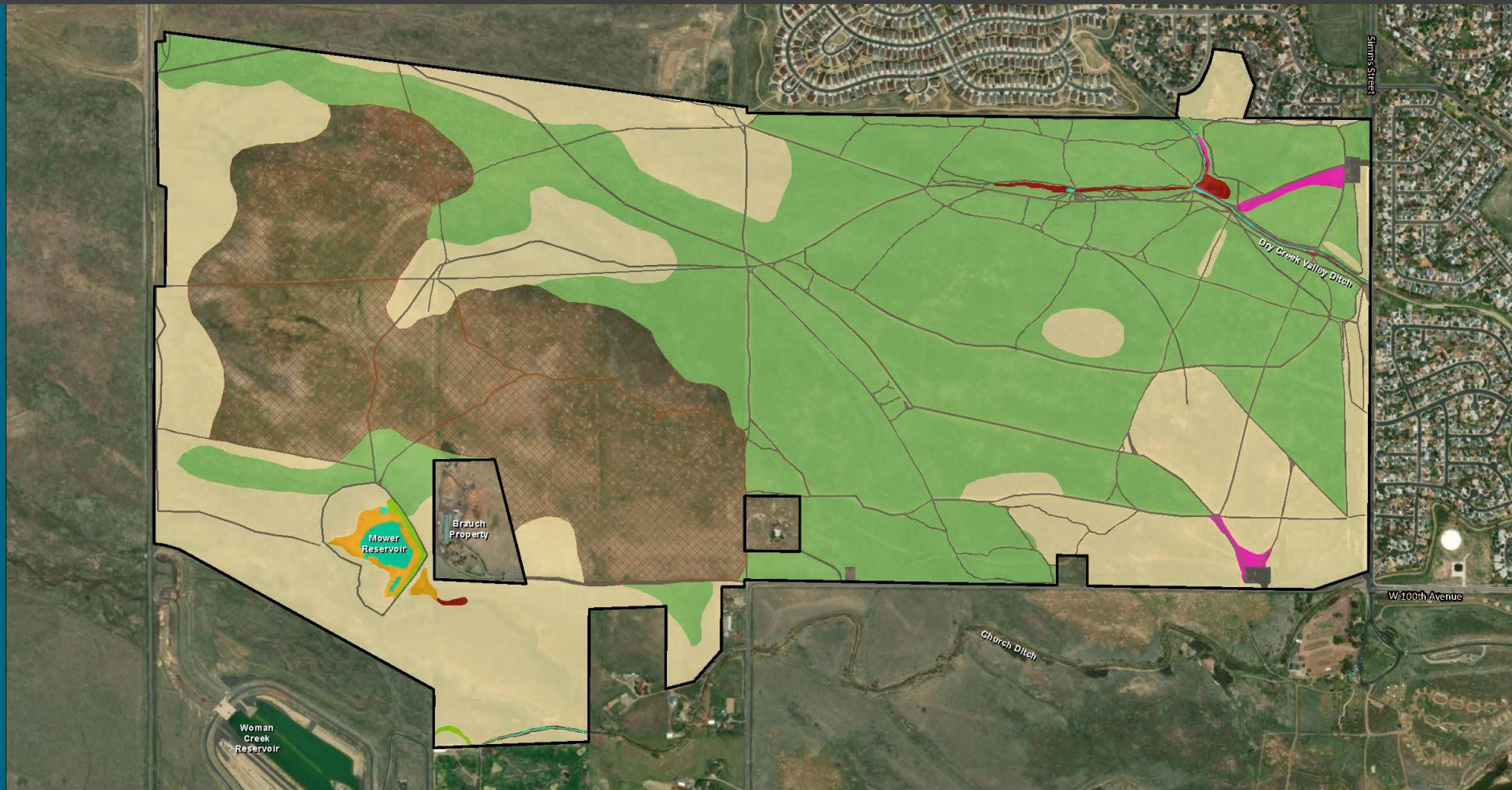


Prepared for: City of Westminister  
File: 28059 Figure 7 Wildlife.mxd [dkt]  
October 30, 2023





# GRASSLAND STATUS



Westminister Hills Open Space Management Plan

- |                     |                   |                     |
|---------------------|-------------------|---------------------|
| Open Space Boundary | Open Water        | Nonnative Grassland |
| Emergent Marsh      | Riparian Woodland | Disturbed/Developed |
| Mesic/Wet Meadow    | Mixed Grassland   | Bare Ground         |
|                     | Noxious Weeds     |                     |

Figure 4  
Vegetation Communities

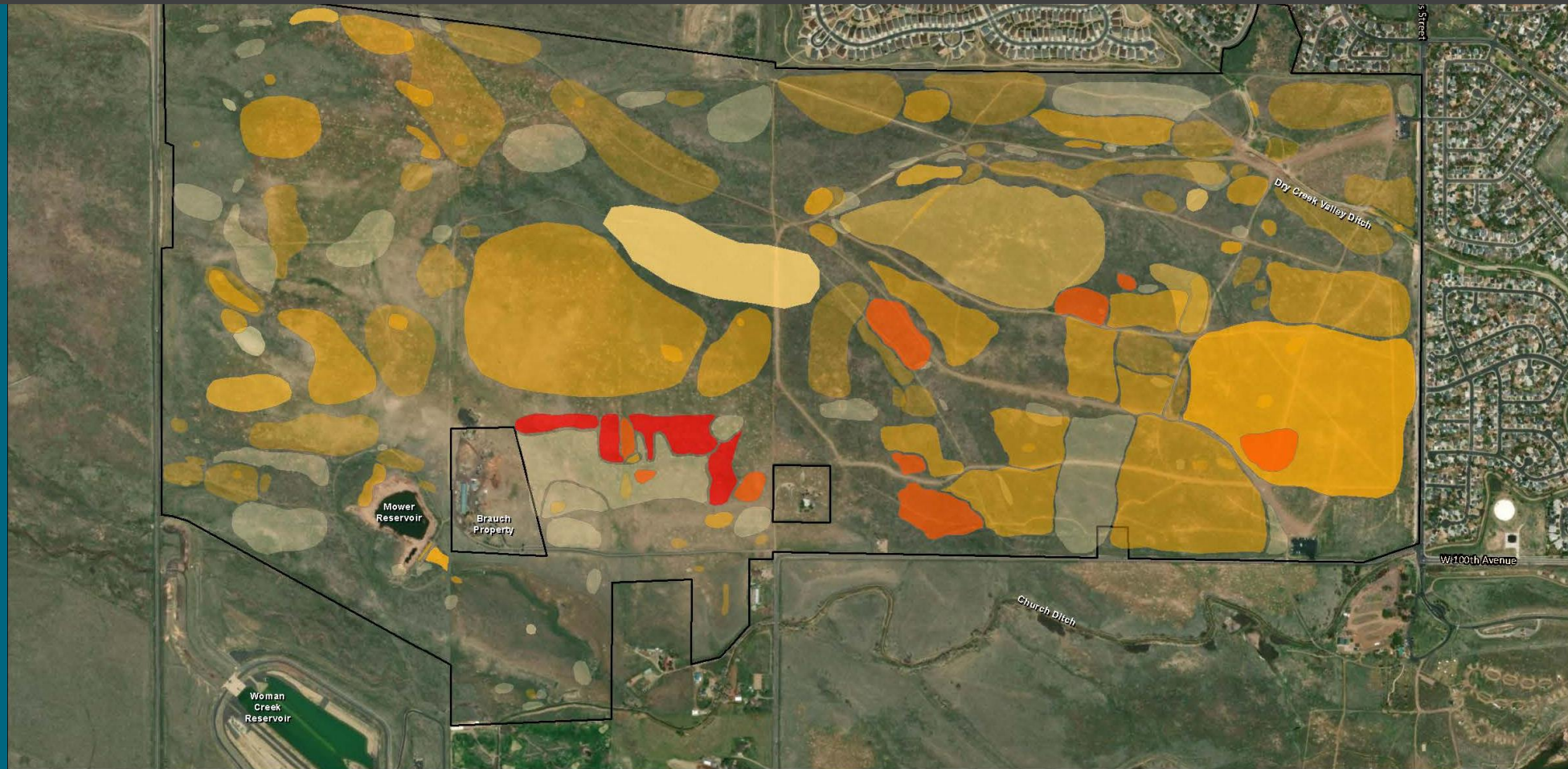


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File: ZS158 Figure 4 Vegetation.mxd | dlm  
Date: 11/19/2015





# LIST B NOXIOUS WEEDS



Westminister Hills Open Space Management Plan

Open Space Boundary

List B Noxious Weeds

- |                         |                        |
|-------------------------|------------------------|
| CT - Canada Thistle     | MT - Musk Thistle      |
| DK - Diffuse Knapweed   | RO - Russian Olive     |
| DT - Dalmatian Toadflax | SC - Sulfur Cinquefoil |
| HC - Hoary Cres         | ST - Scotch Thistle    |
| JG - Jointed Goatgrass  | TE - Common Teasel     |
| MM - Moth Mullien       |                        |

Noxious Weed Density

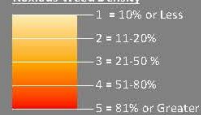


Figure 5  
List B Noxious Weeds

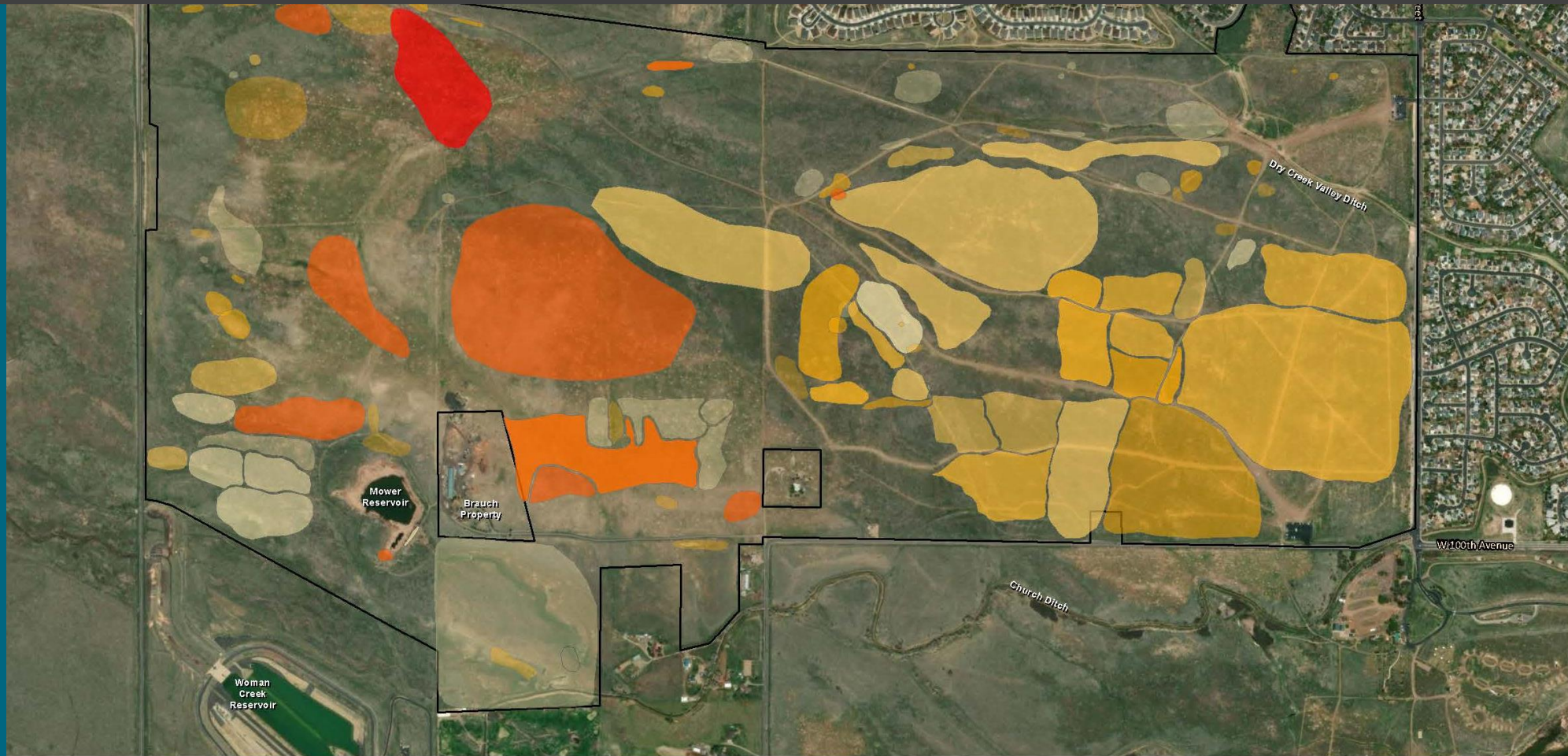


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October 30, 2023





# LIST C NOXIOUS WEEDS



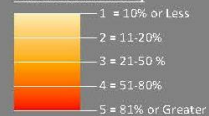
Vestminster Hills Open Space Management Plan

Open Space Boundary

List C Noxious Weeds

- CG - Cheatgrass
- CM - Common Mullein
- FB - Field Bindweed
- QG - Quack Grass - List C
- RSF - Redstem Filaree - List C
- SJ - Common St. Johnswort - List C
- SF - Siberian Elm - List C

Noxious Weed Density



List C Noxious Weeds



Prepared for: City of Westminister  
 File: 23059 Figure 5 List C Heatmap.mxd [DHH]  
 October 30, 2023

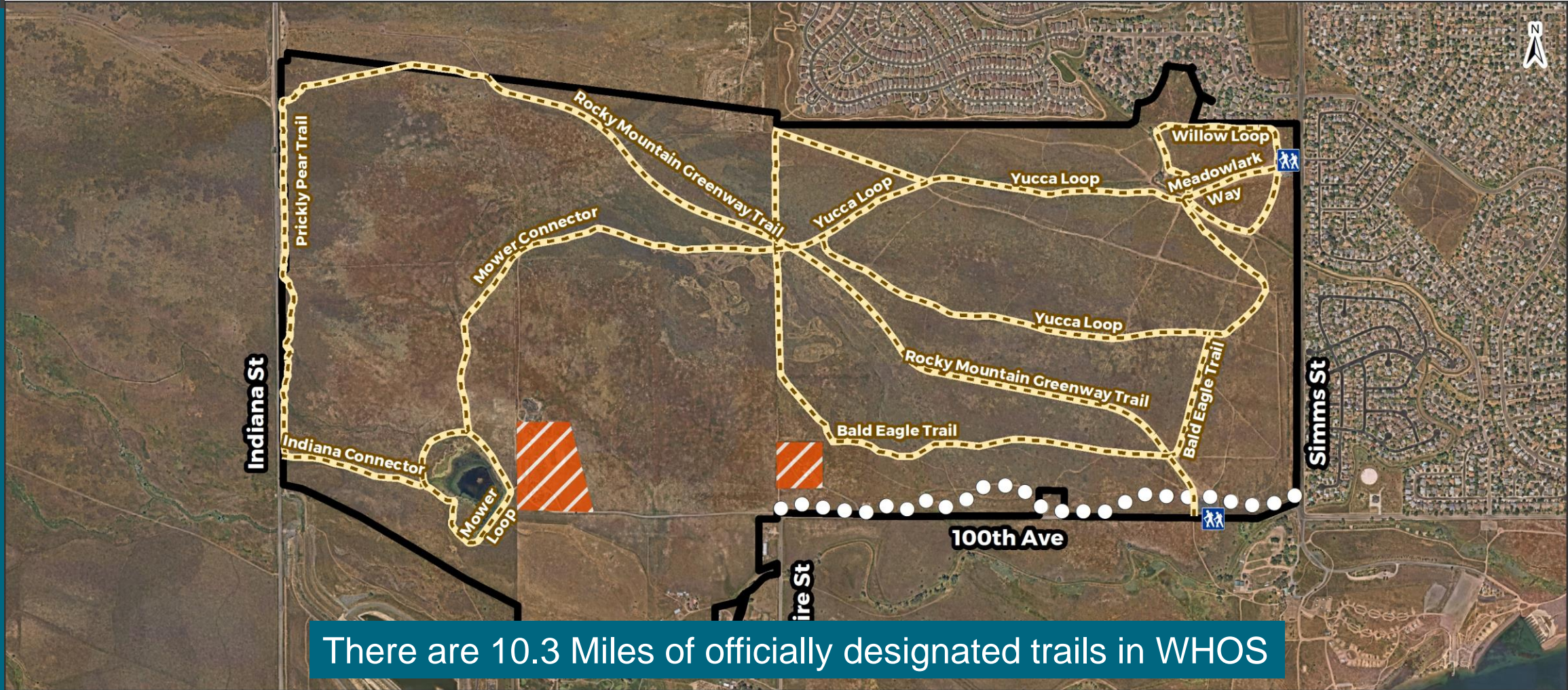




# TRAILS CONDITION

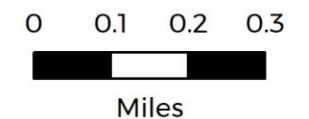


# DESIGNATED TRAILS



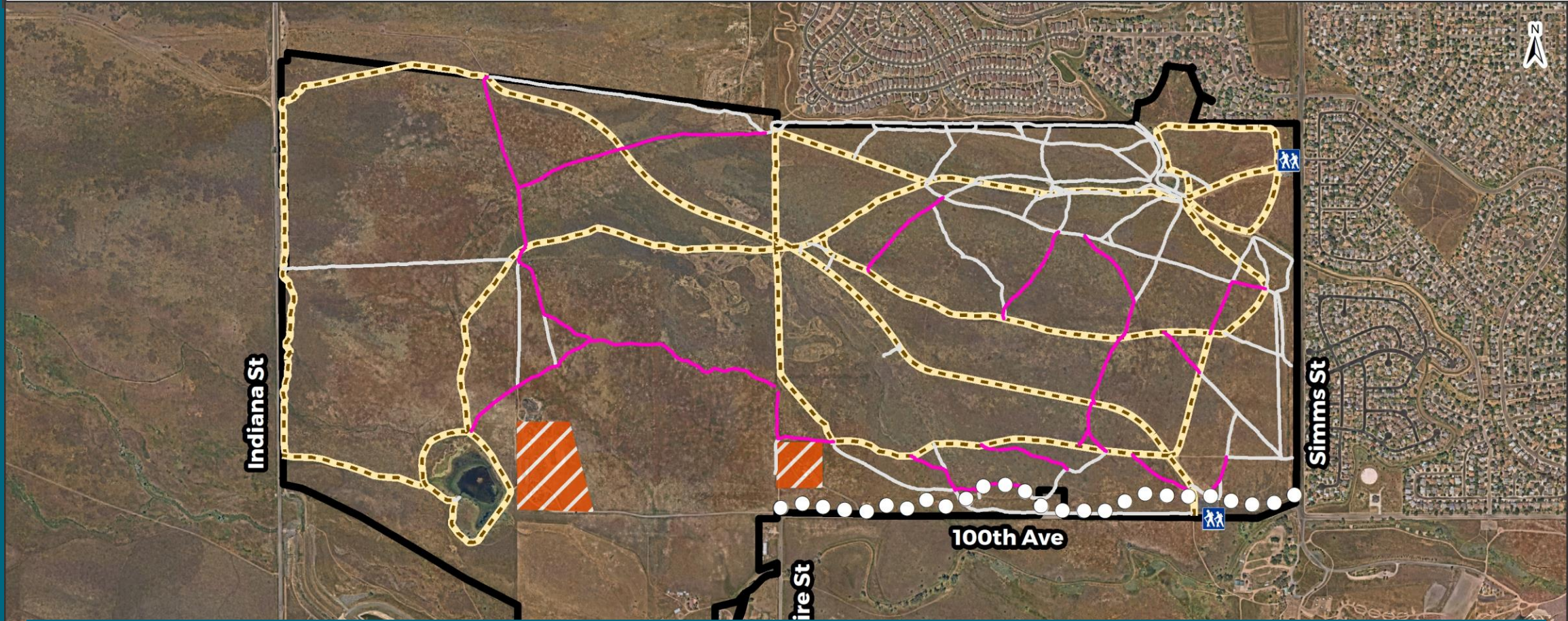
There are 10.3 Miles of officially designated trails in WHOS

- Trail Head
- Designated Trail
- 100th St. Trail in Progress
- Project Area
- Excluded Area

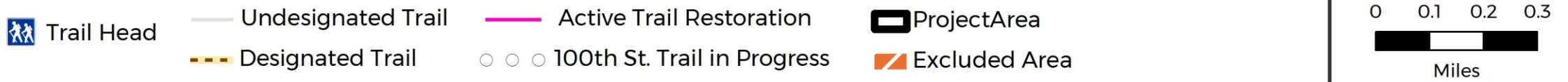




# UNDESIGNATED TRAILS



There are ~12 Miles of undesignated trails in WHOS, 3.8 miles are being actively restored





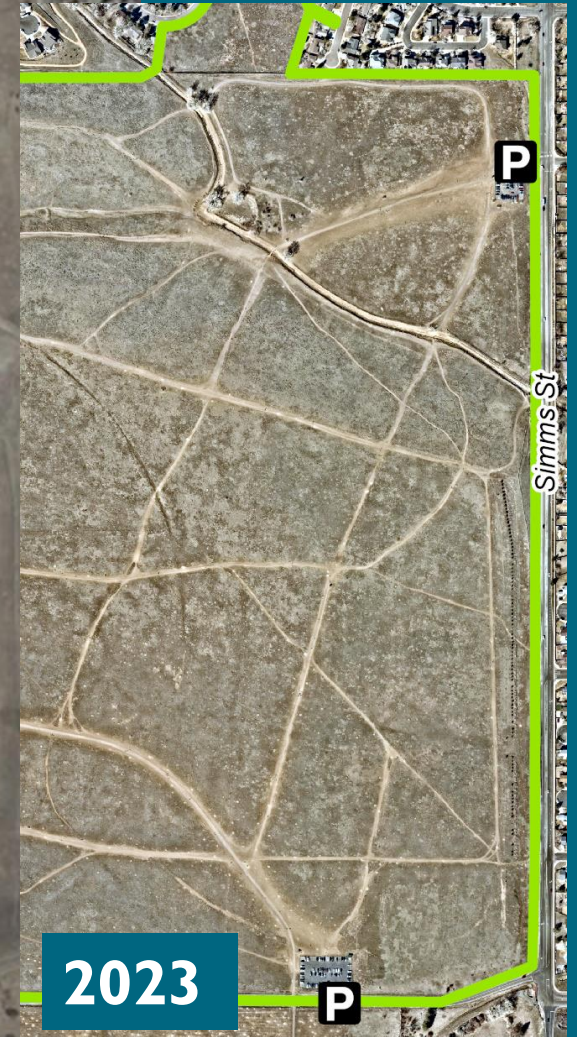
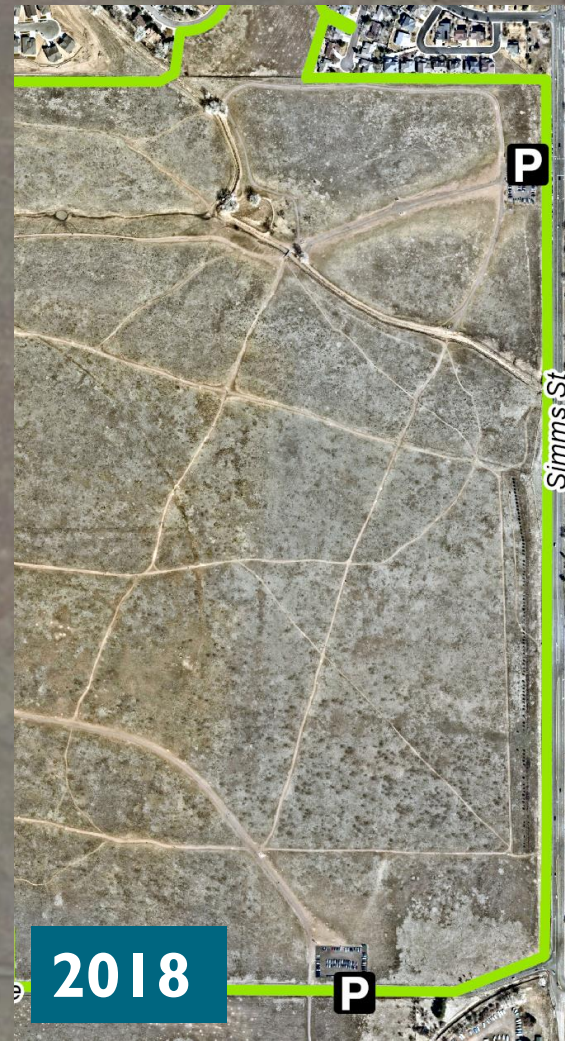
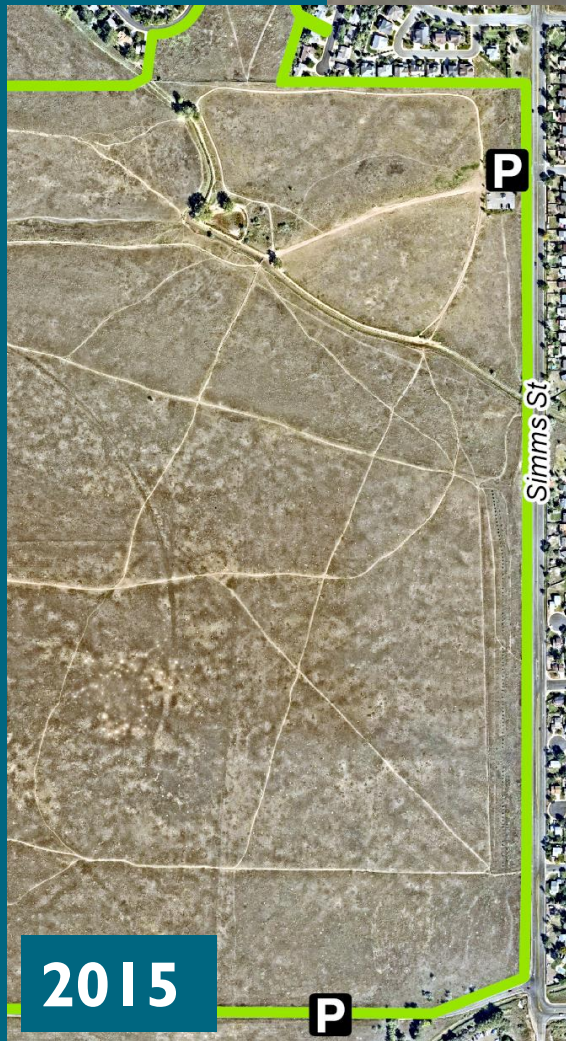
# TRAILS OVER TIME



2002

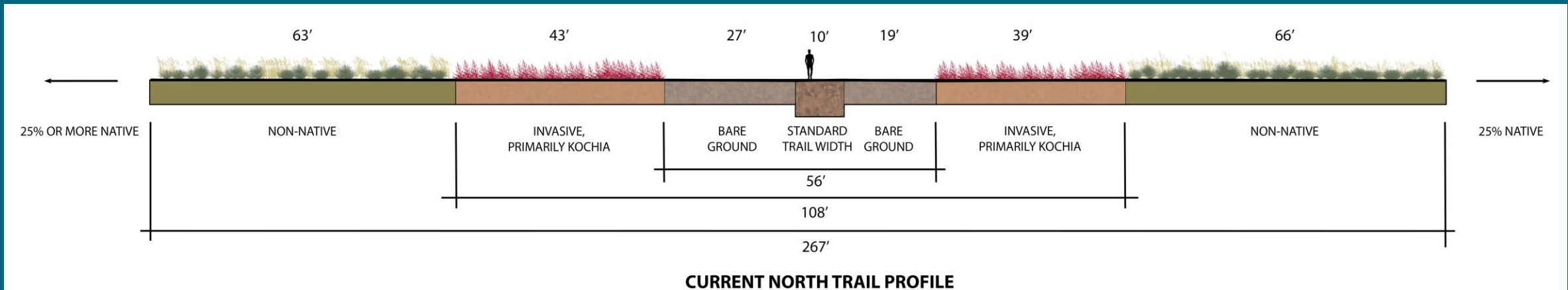


# TRAILS OVER TIME



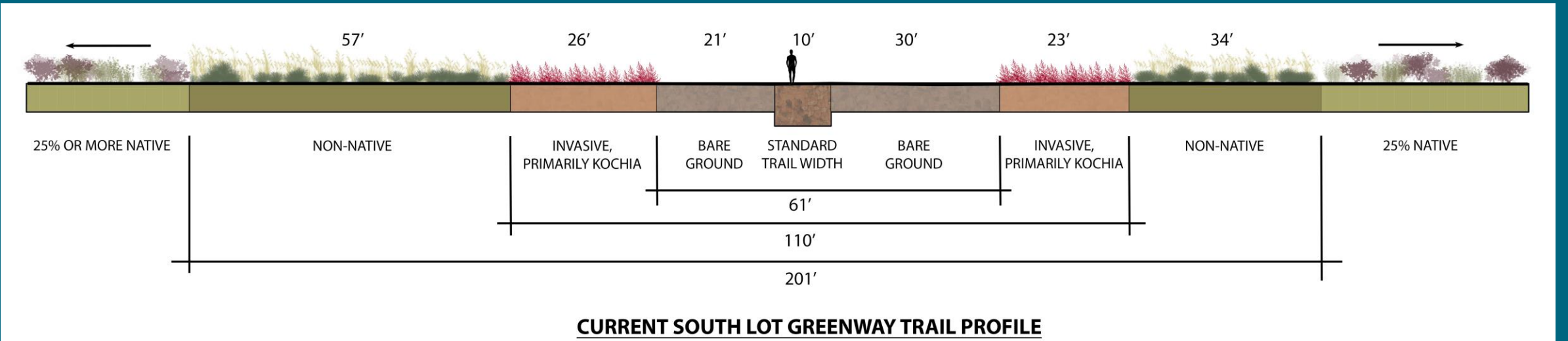


# NORTH (SIMMS) TRAIL PROFILE

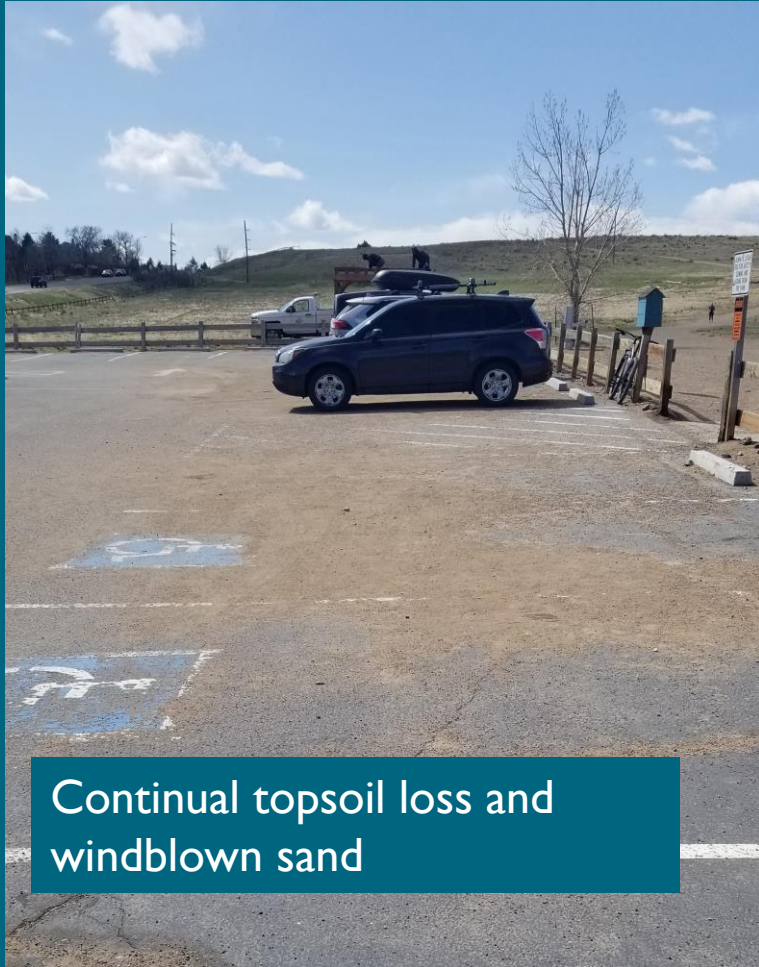




# GREENWAY TRAIL VEGETATION PROFILE



# TRAIL VEGETATION ISSUES



Continual topsoil loss and windblown sand



Invasive Kochia



Complete loss of ground cover and water quality impacts



# DOG EXCREMENT SAMPLE



- North Sample area 20' wide (left to right in image) x 100' long (top to bottom in image)
- >100 individual fecal piles, greater than 1 fecal sample every 20 sq ft
- South Sample area 20' wide x 75' long
- 46 fecal samples; approximately 1 fecal sample every 32 sq ft

# SURFACE WATER SAMPLING

## Surface water *E. coli* concentrations

Sample ID	Date	Results (MPN/100mL)	EPA Threshold Value <sup>1</sup>	EPA Threshold Value <sup>2</sup>
WH-SW-1 (Mower Reservoir)	5/23/2023	>2,419.6	100	320
WH-SW-1 (Mower Reservoir)	6/22/2023	1,119.9	100	320
WH-SW-1 (Mower Reservoir)	7/27/2023	1,119.9	100	320
WH-SW-1 (Mower Reservoir)	8/28/2023	>2,419.6	100	320
WH-SW-2	5/23/2023	32.7	100	320
WH-SW-2	6/22/2023	261.3	100	320
WH-SW-2	7/27/2023	980.4	100	320
WH-SW-2	8/28/2023	>2,419.6	100	320
WH-SW-3	5/23/2023	35.5	100	320
WH-SW-3	6/22/2023	290.9	100	320
WH-SW-3	7/27/2023	816.4	100	320
WH-SW-3	8/28/2023	>2,419.6	100	320

<sup>1</sup> = EPA Estimated illness rate: 32 per 1,000 - Geometric Mean (colony forming units [cfu]/100mL); <sup>2</sup> = EPA Estimated illness rate: 32 per 1,000 – statistical threshold value (STV- 90th percentile (cfu/100mL); **Bold** = Concentration exceeds one or both Threshold Values.

The EPA provides these general actions to take when responding to elevated *E. coli* concentrations in recreational waters (EPA 2021):

- Take action in the event of an exceedance to prevent human exposure to *E. coli*. Exposure can cause infection, diarrhea, and other illness in humans. Additional data may be needed to understand the cause of the exceedance.
- Issue a public notice and **post advisories to notify the public that the waterbody is closed to recreational activities.**
- To prevent future *E. coli* exceedances, identify the source of the bacteria. Depending on the source, different steps will be necessary to remediate the problem and reduce the likelihood of future events.
- **Place permanent signage in known areas of recorded dog waste issues and around water bodies to remind owners to remove dog waste.**
- **Post all water bodies as being potentially unsafe for recreational use.**

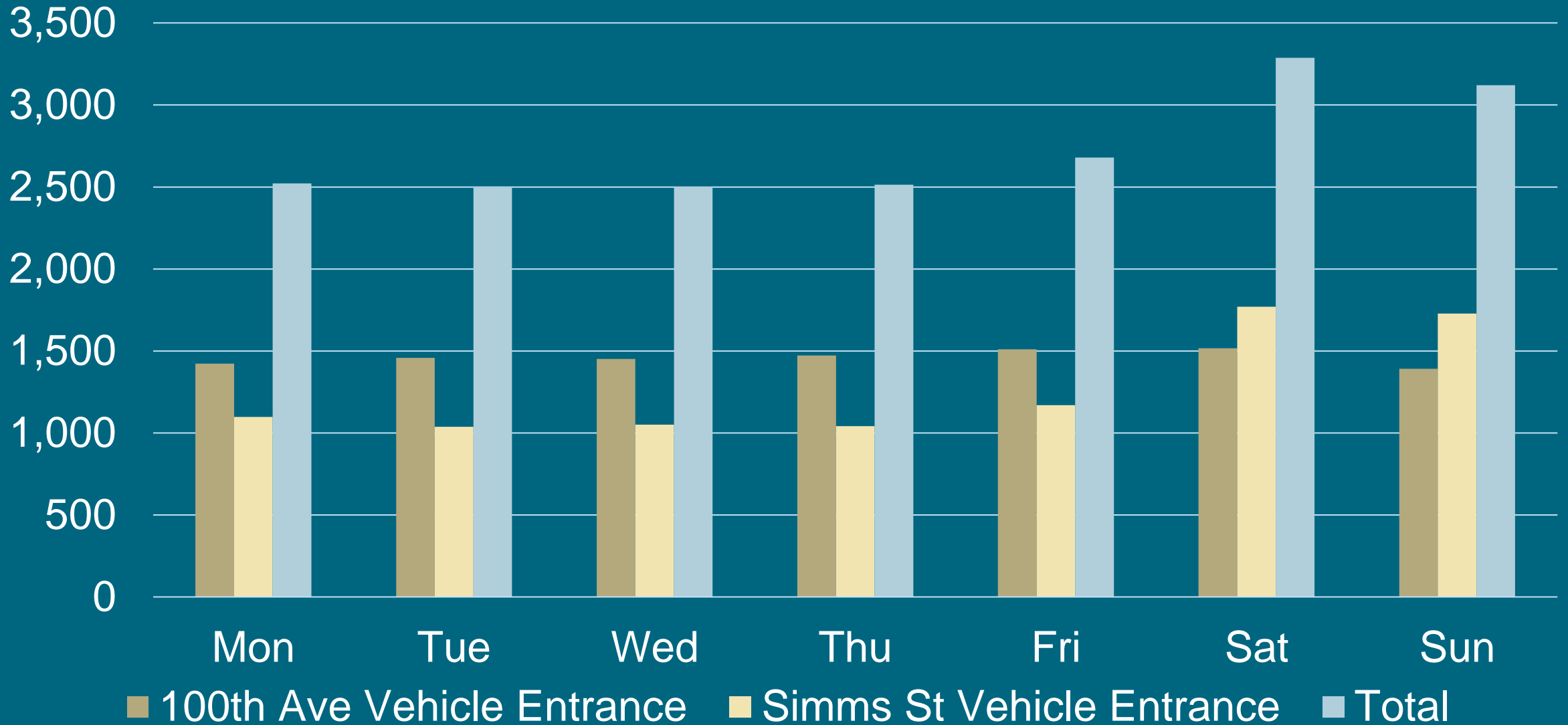


# PARKING

- Two paved lots; Simms and 105<sup>th</sup> and 100<sup>th</sup> Avenue.
- Total of 135 spaces (60 at Simms and 75 at 100<sup>th</sup>).
- Parking lots have been expanded at least 6x since 2000.
- Every expansion of parking has been followed by significant increases in visitors.
- Current parking capacity meets average use volume 5 days a week, but overflows onto adjacent streets on weekends.

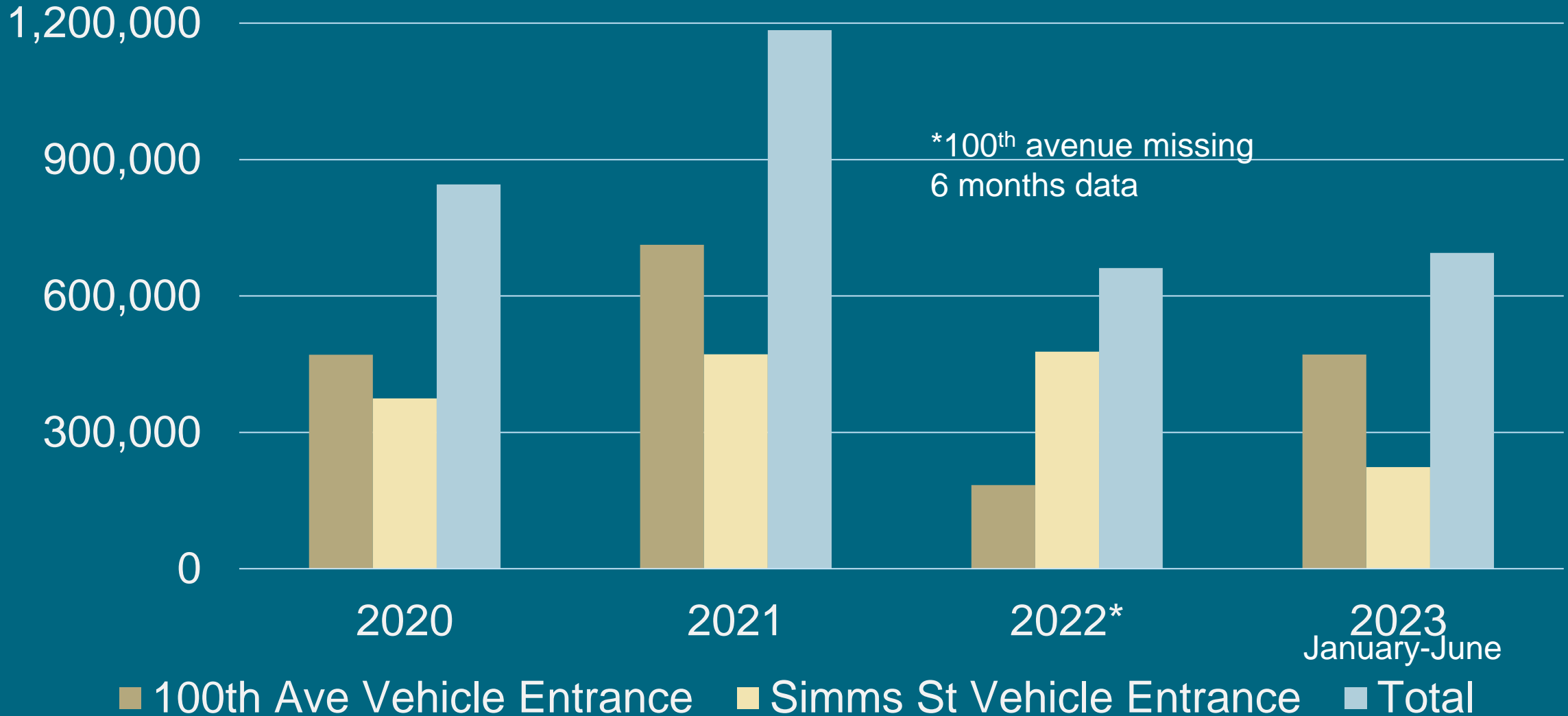


# DAILY VEHICLE COUNTS





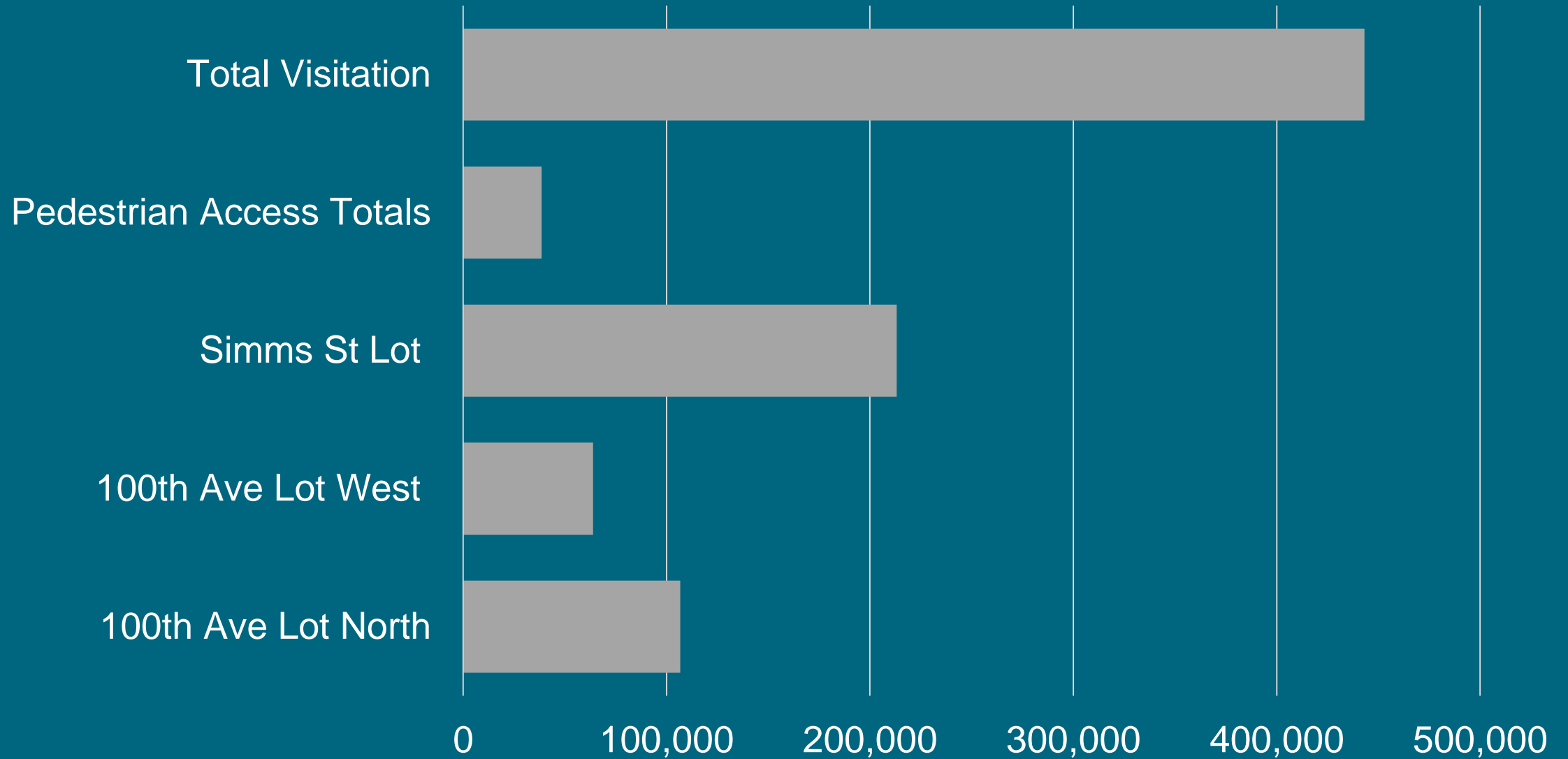
# YEARLY VEHICLE COUNTS



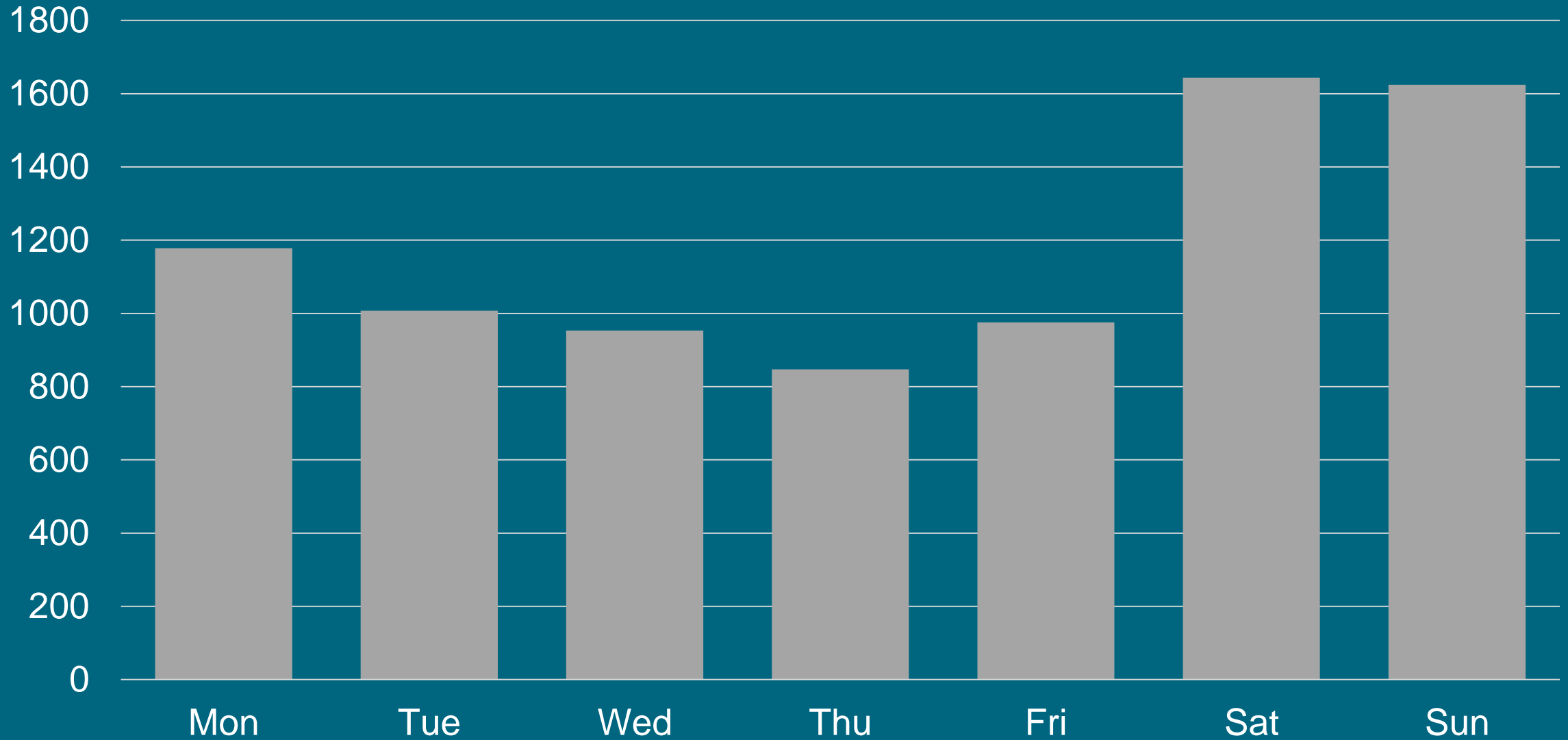
# VISITATION DATA



# VISITOR COUNTS APRIL 27- JUNE 27



# DAILY AVERAGE APRIL 27- JUNE 27





# EVALUATION OF OFF LEASH DOG OPPORTUNITY

# OFF-LEASH DOG SITE

- In 2000, community request for an off-leash dog opportunity, at the time off-leash opportunities were rare and little research had been done on impacts.
- City Council approved a change to the Westminster Municipal Code (WMC) to allow a one-year pilot project on approximately 20 acres of open space at the Colorado Hills Open Space site (WHOS).
- No formal evaluation of the pilot project was done and in 2001 pilot was deemed successful and expanded to ~40 acres
- In 2008 staff expanded the off-leash area to all WHOS (1000 ac)
- In 2009 after multiple dog coyote conflicts and an outbreak of Bubonic plague off-leash area was reduced to the current ~400ac



# OFF-LEASH DOG SITE REGULATION

## 13-5-3. - Preservation of Land and Other Open Space Uses.

- A. Generally, lands acquired with open space funds shall be preserved and managed in a natural condition ... Examples of compatible passive recreation include hiking, nature study and photography.
- B. Additional activities that may be allowed on certain open space property, or portions thereof, after the City Manager determines such activities **will not have a detrimental effect on the natural qualities** for which the open space was originally acquired include... off-leash dog exercise areas

## 13-1-7. - Use Regulations at Off-Leash Dog Sites.

The Parks, Recreation and Libraries Director is authorized to establish or discontinue off-leash dog park sites.

# IMPACTS OF OFF-LEASH DOGS

## (PUBLISHED FINDINGS SINCE 2000)

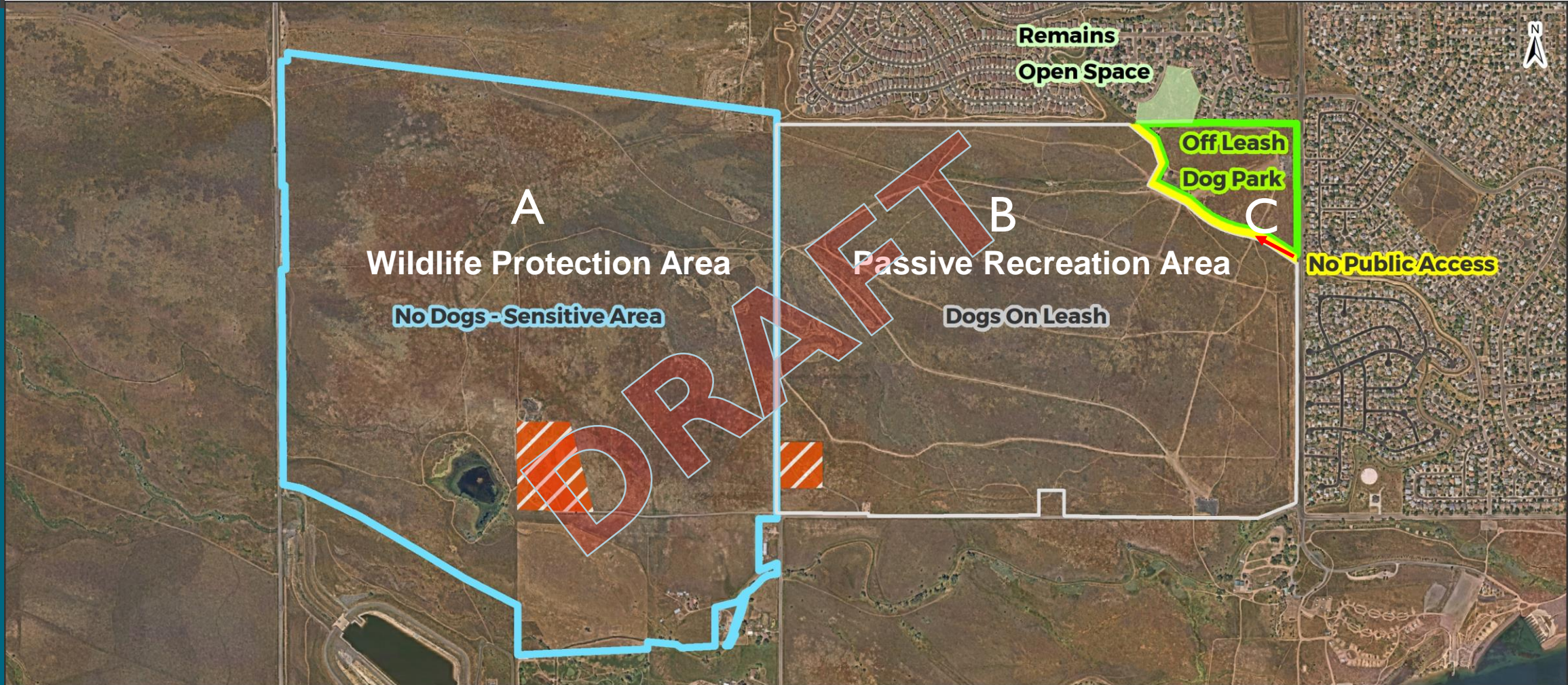
- The presence of dogs causes most wildlife to move away from an area, which temporarily or permanently reduces the amount of functionally available habitat to wildlife.
- People with dogs disturb wildlife more than humans alone.
- The disturbance effects of off-leash dogs are stronger than on-leash and substantially expand the amount of wildlife habitat affected.
- Birds flush more readily in the presence of dogs than people, resulting in reduced fitness and nesting failure.
- On Trails with dog use there are significant impacts to ground nesting birds, within 246 feet of the trail.
- The unpredictability of off-leash dogs prevents wildlife habituation in large areas of habitat.
- Dog walking caused a 41% reduction in numbers of bird individuals detected and a 35% reduction in species richness.
- Dog feces adds significant nitrogen to the soil, which encourages the growth of non-native plants at the expense of native plants.




# **DRAFT RECOMMENDED ACTIONS**



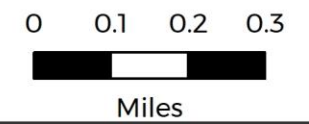
# PROPOSED MANAGEMENT DESIGNATIONS



 Off Leash Dog Park  
 Dogs On Leash

 No Public Access  
 No Dogs - Sensitive Area

 Remains Open Space  
 Excluded Area





# PROPOSED AREA DESIGNATION AND DOG MANAGEMENT RECOMMENDATIONS

- A. Change area management designation of Woman Creek (west of Alkire to Indiana) from Urban Natural to Sensitive

## Sensitive Landscape Management Areas

*Sensitive landscape* open space parcels include sites that have high value landscape features such as threatened and endangered species, wetlands, or relatively complex rich plant communities. Such parcels have the highest value for flora and fauna when viewed at both the localized and community-wide level.

## Management Strategy

- Preserve the resource as the primary goal.
- Recreational uses should be restricted to designated trails.
- Efforts should be made to close and revegetate all social trails in the area.
- All trailheads should include educational and regulatory information.
- Noxious weed management in the area should concentrate on eradication.

# AREA DESIGNATION AND DOG MANAGEMENT RECOMMENDATIONS

- B. Designate the Westminster Hills Area West of the ditch and East of Alkire as a Passive Recreational Opportunity Area where dogs must be leashed
- Management consistent with Open Space regulations throughout the rest of the City.
  - Provides protection for sensitive natural resource.
  - Allows for restoration of disturbed areas.
  - Continues to provide opportunities for passive recreational use with dogs.
  - Current off-leash activity does have a detrimental effect on the natural qualities for which the open space was originally acquired in contradiction of City code.



# PROPOSED AREA DESIGNATION AND DOG MANAGEMENT RECOMMENDATIONS

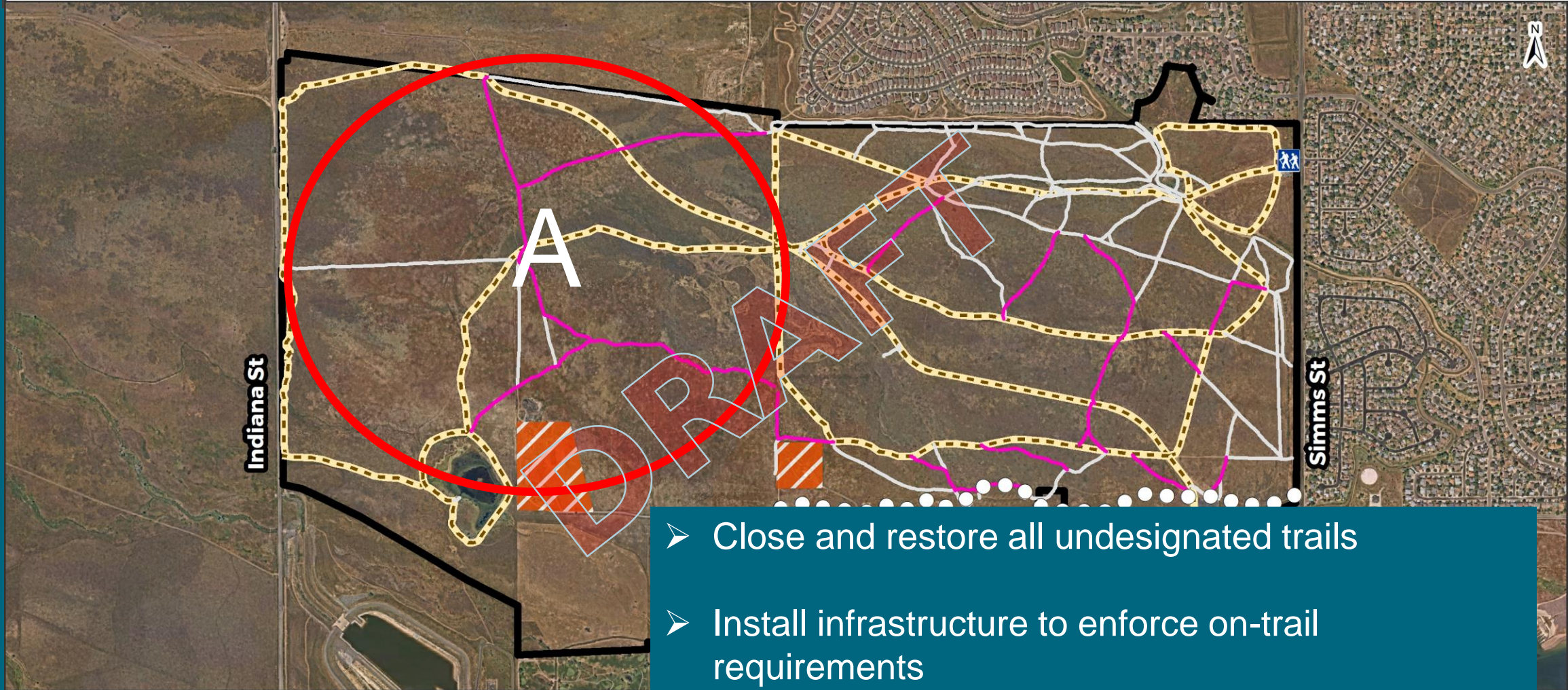
C. Evaluate Dog Off leash Opportunities: Either transfer a portion of WHOS east of the ditch to Parks for development as a dog park or identify dog park opportunities elsewhere

Management consistent with Open Space regulations throughout the rest of the City.

- Specific location would need to be identified to provide neighborhood buffer to the north.
- Install fencing and infrastructure to facilitate transitions from parking lot and from dog park to Open Space.
- Allows for active recreational management including developing appropriate infrastructure.
- Would provide local dog off-leash opportunities consistent with the original intent.

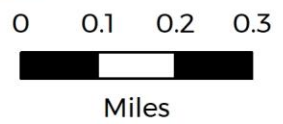


# PROPOSED TRAIL MANAGEMENT FOCUS



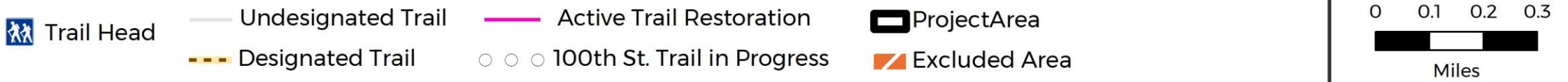
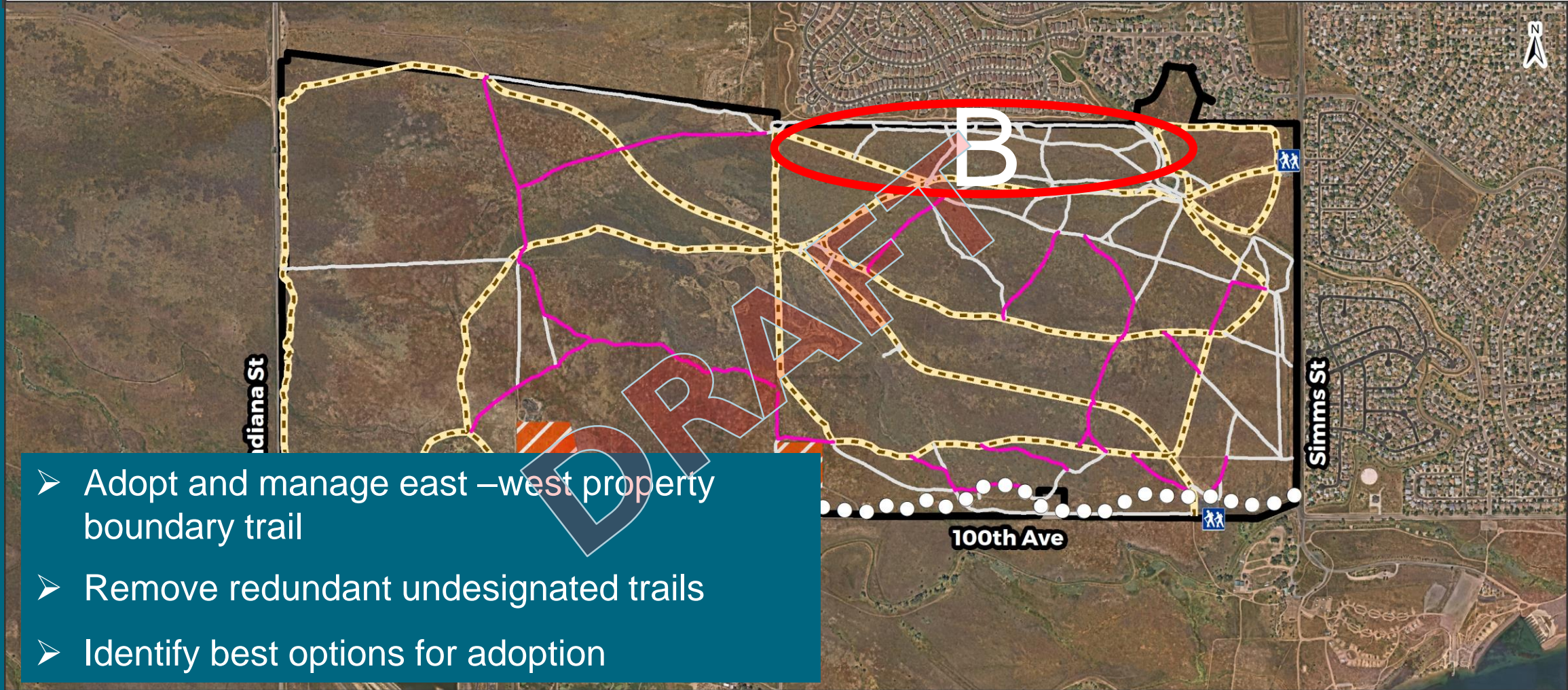
- Close and restore all undesigned trails
- Install infrastructure to enforce on-trail requirements

Trail Head	Undesignated Trail	Active Trail Restoration	Project Area
Designated Trail	100th St. Trail in Progress	Excluded Area	



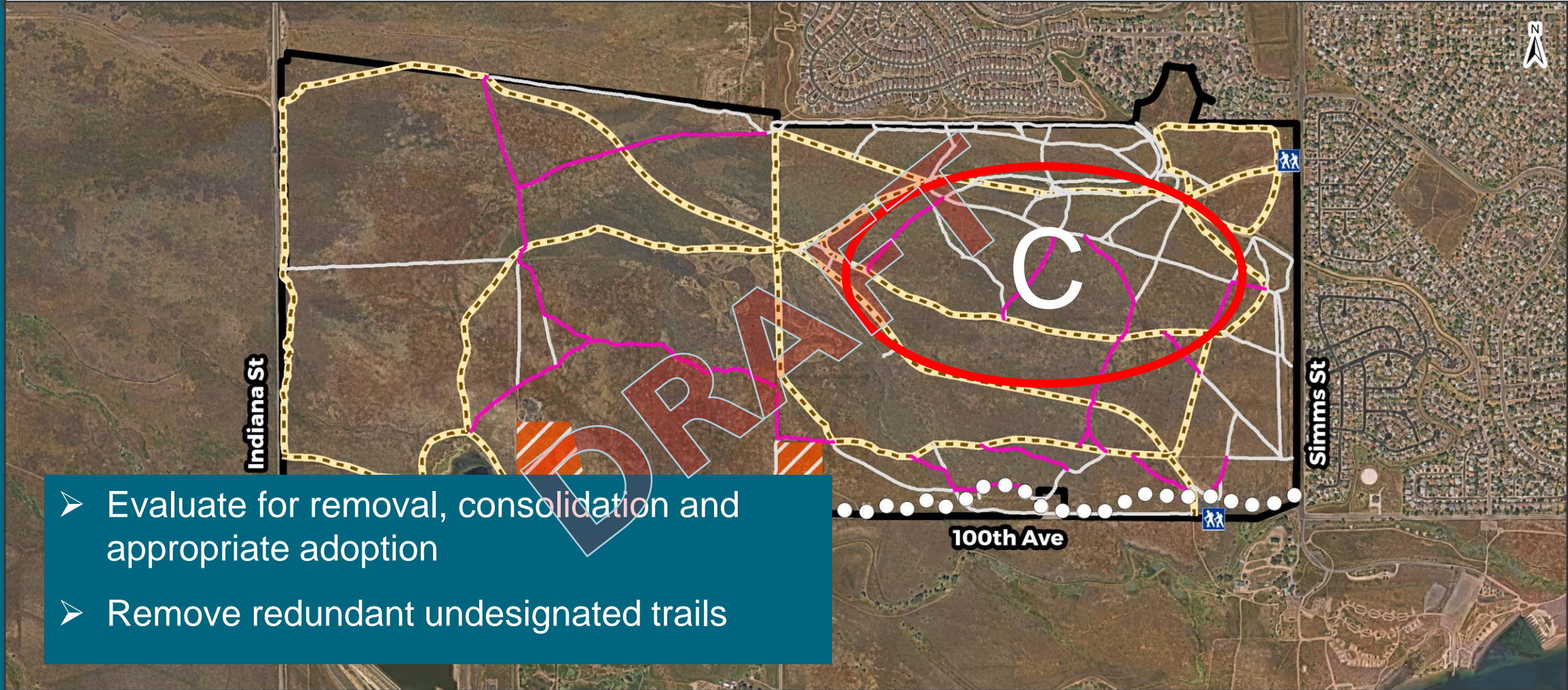


# PROPOSED TRAIL MANAGEMENT FOCUS












# PROPOSED TRAIL MANAGEMENT FOCUS



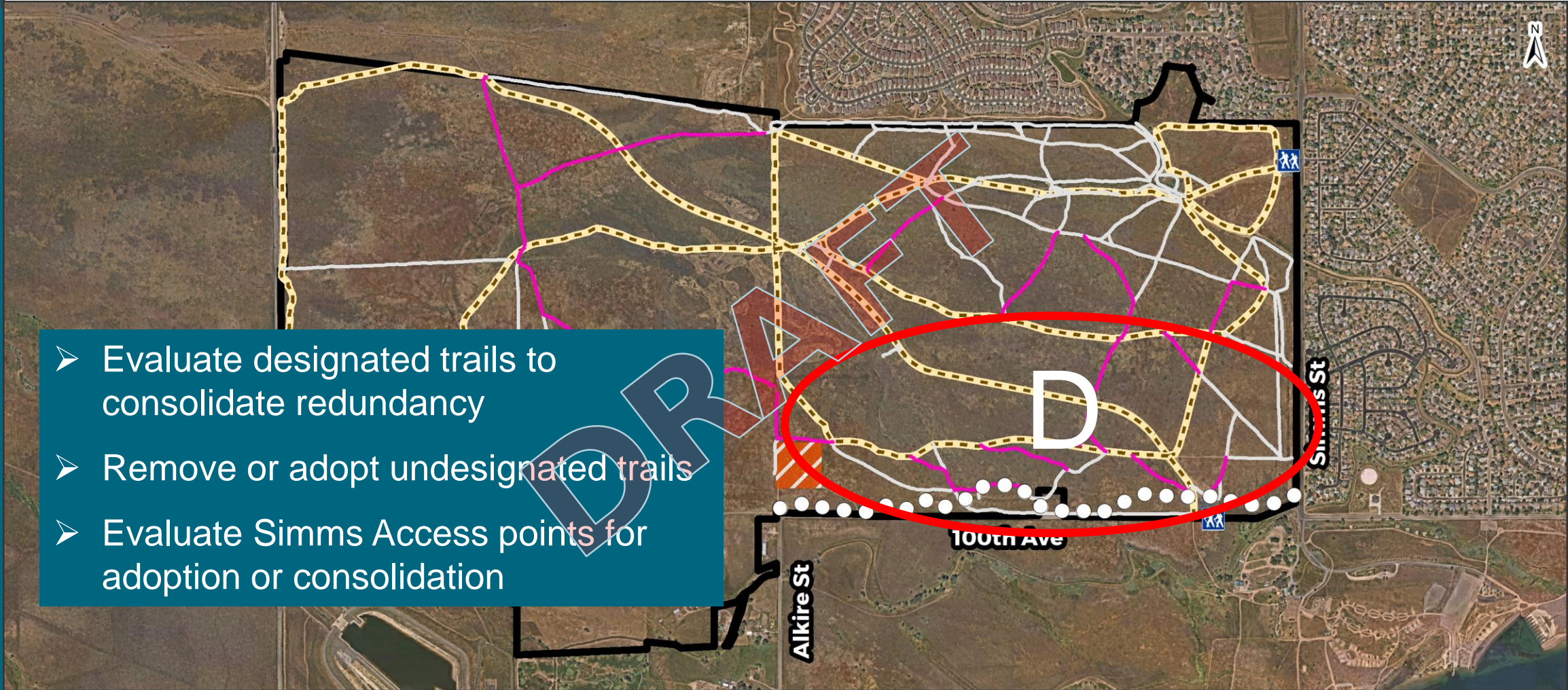
- Evaluate for removal, consolidation and appropriate adoption
- Remove redundant undesigned trails

 Trail Head	 Undesignated Trail	 Active Trail Restoration	 Project Area
 Designated Trail	 100th St. Trail in Progress	 Excluded Area	

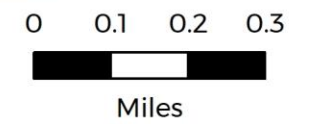


# PROPOSED TRAIL MANAGEMENT FOCUS

- Evaluate designated trails to consolidate redundancy
- Remove or adopt undesignated trails
- Evaluate Simms Access points for adoption or consolidation



Trail Head	Undesignated Trail	Active Trail Restoration	Project Area
Designated Trail	100th St. Trail in Progress	Excluded Area	





# PROPOSED EDUCATIONAL OPPORTUNITIES

- Develop and Install educational signage to emphasize the importance and value of Shortgrass Prairie Ecosystems.
- Identify an easily accessed loop trail from the 100<sup>th</sup> Trailhead to establish an interpretive walk.
- In partnership with the Leave No Trace organization, host Spotlight Focus programming.
- Work with partners including the Butterfly Pavilion to establish Burrowing Owl Monitoring, restoration evaluation, and BioBlitz assessments
- Host Interpretive Nature Education opportunities on a regular basis, develop a volunteer friends of WHOS to support.





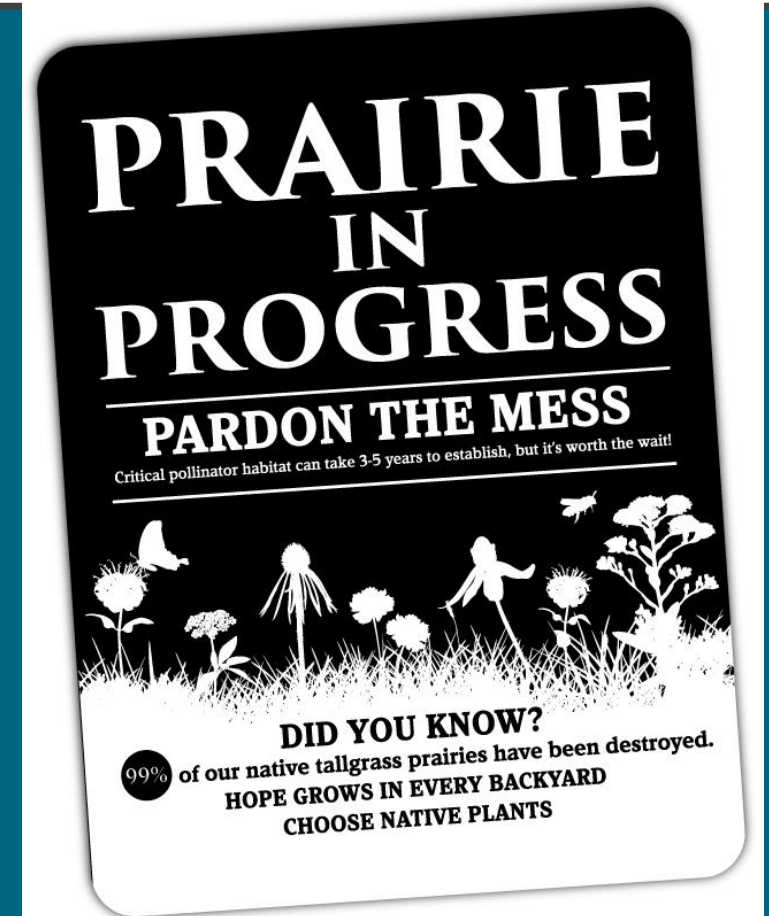
# PROPOSED INFRASTRUCTURE AND SIGNAGE

- Develop and Install consistent sign messaging to clearly present regulatory requirements.
- Utilize fencing, plantings and other infrastructure to encourage and enforce on trail requirements
- Evaluate current fencing and remove any unnecessary segments.



# PROPOSED RESTORATION AND INVASIVE SPECIES MANAGEMENT

- Continue Integrated Pest Management to control all Colorado State Listed Species on the property
- Develop program for targeted List B species eradication and control
- Identify High Priority areas for restoration and re-establishment of Native Short Grass Prairie.
  - Areas with existing stands of healthy native plants East of Alkire
  - Prepare restoration action plans for quick implementation in the event of a Prairie Dog Colony Collapse
  - Transition Non-Native Grasslands on Woman Creek Property to Native
  - Target 10-20 Acres of new restoration areas on an annual basis





To provide feedback on tonight's presentation and sign up for future updates please email:  
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