



# Phragmites study update

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TAC meeting ▪ 13 July 2022



# Context

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- **Early 2000s:** Rapid *Phragmites* spread
- **2008:** Large-scale *Phragmites* control begins
- **2020-2022:** June flow augmentation



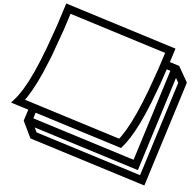
# Big Question

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*How effective is Program management of Phragmites for maintaining suitable whooping crane roosting habitat?*

Sub-questions:

- How effective have previous Program control efforts (flow, spraying, etc.) been?
- How much do growing season flows influence *Phragmites* expansion/control?

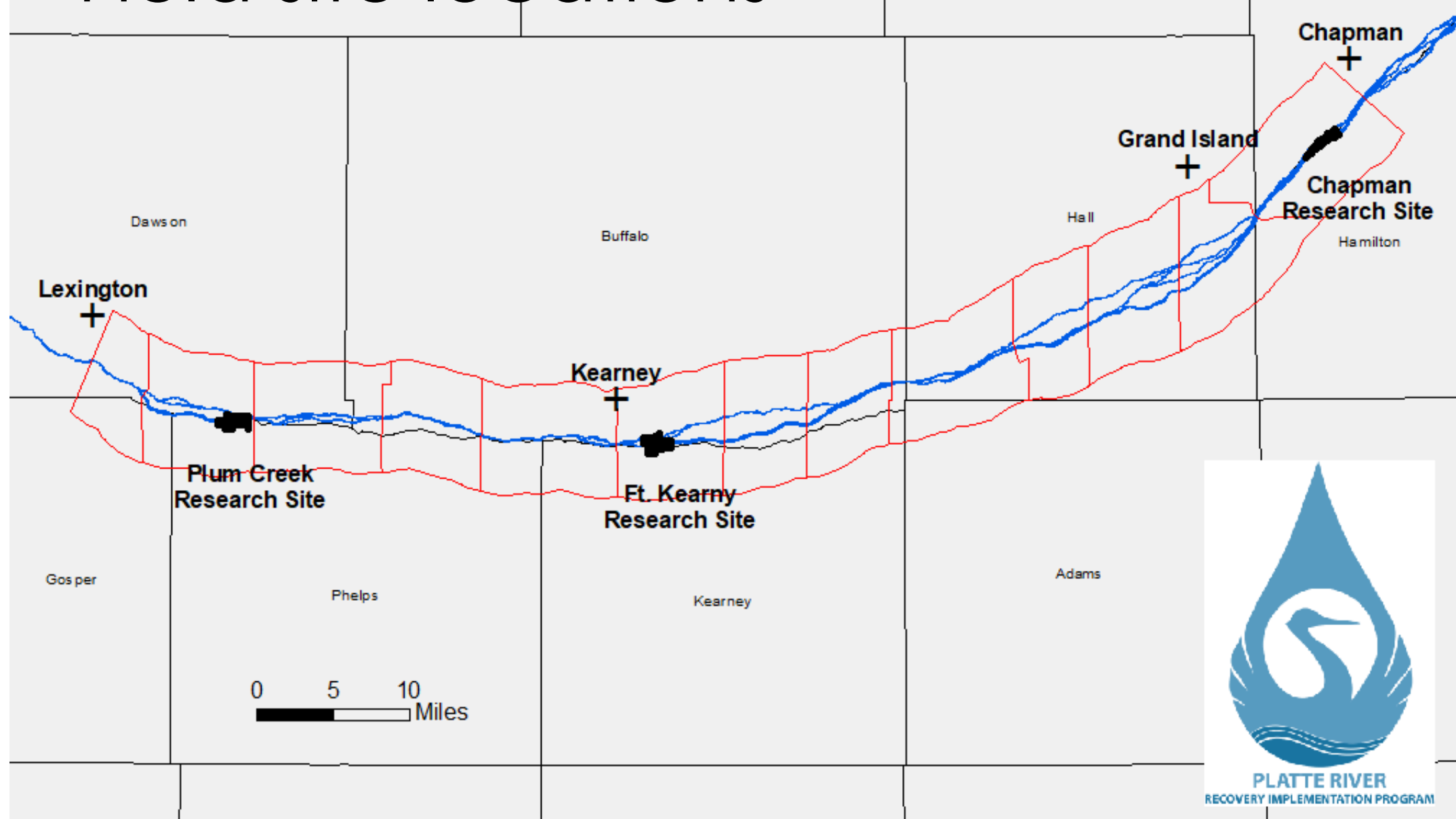


# Note on study development

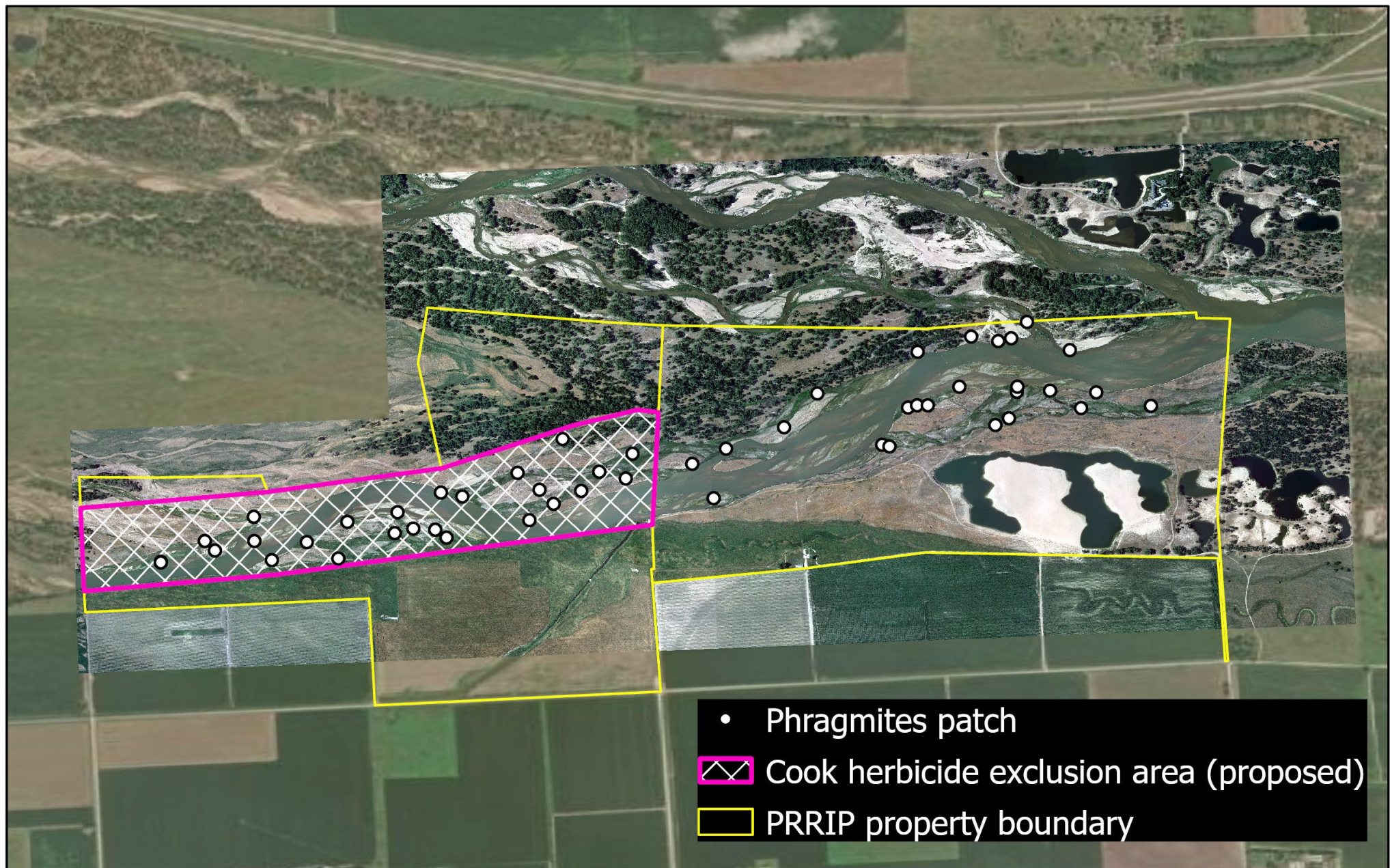
- Details are subject to change based on additional info – and your input!

Stay tuned for more...

# Field site locations



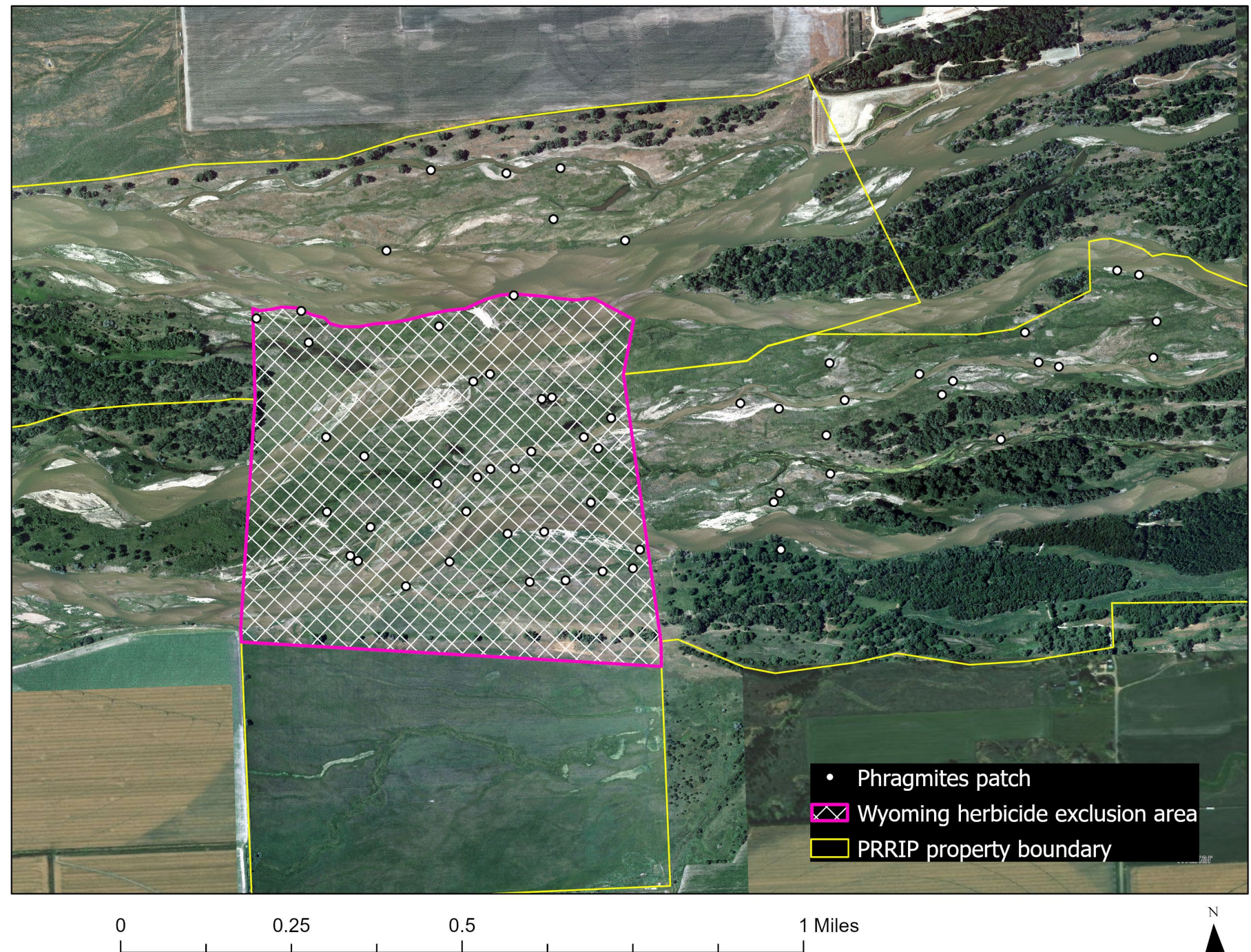
# Plum Creek site



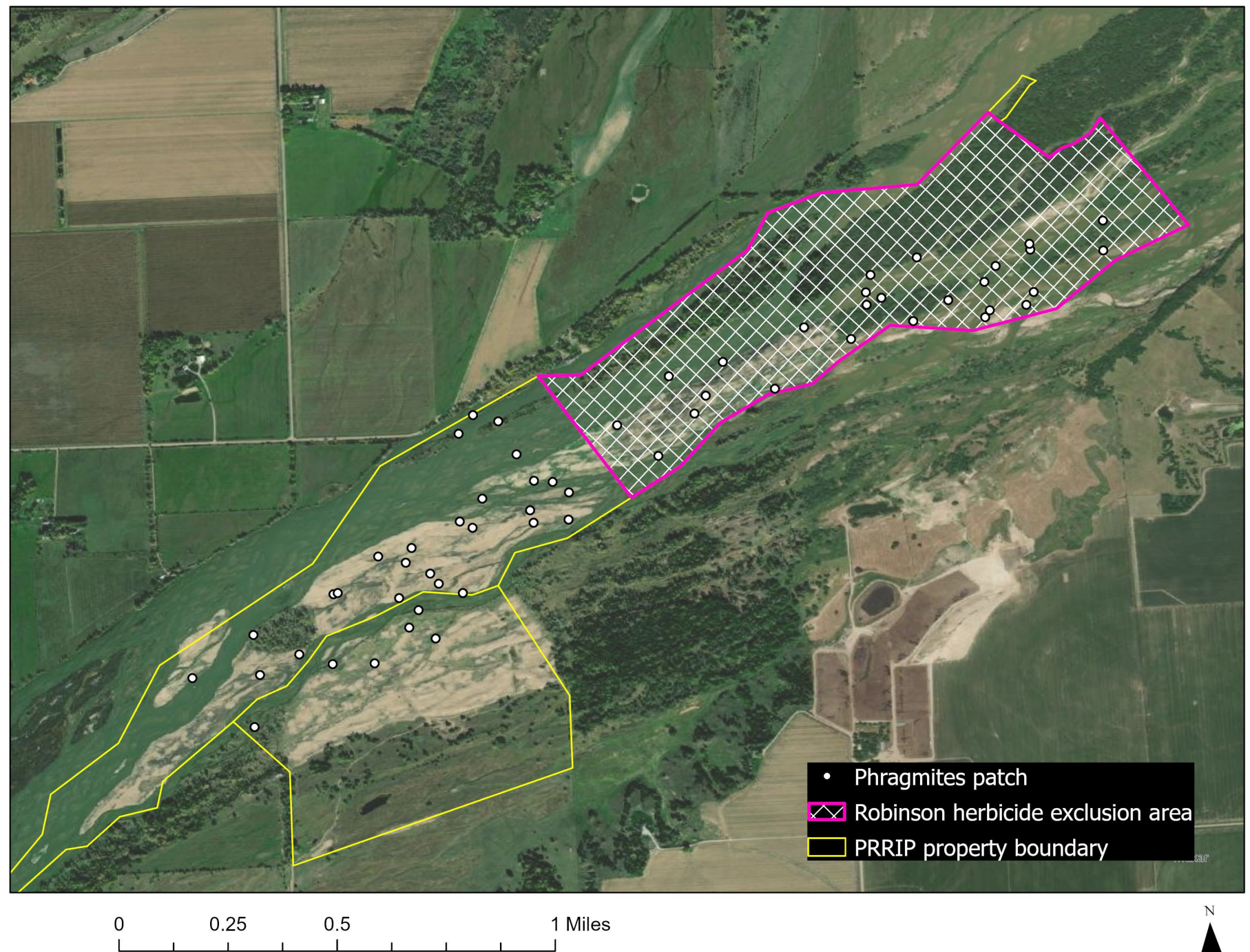
0 0.25 0.5 1 Miles

N

# Fort Kearny site

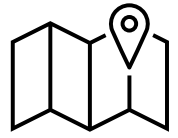


# Chapman site



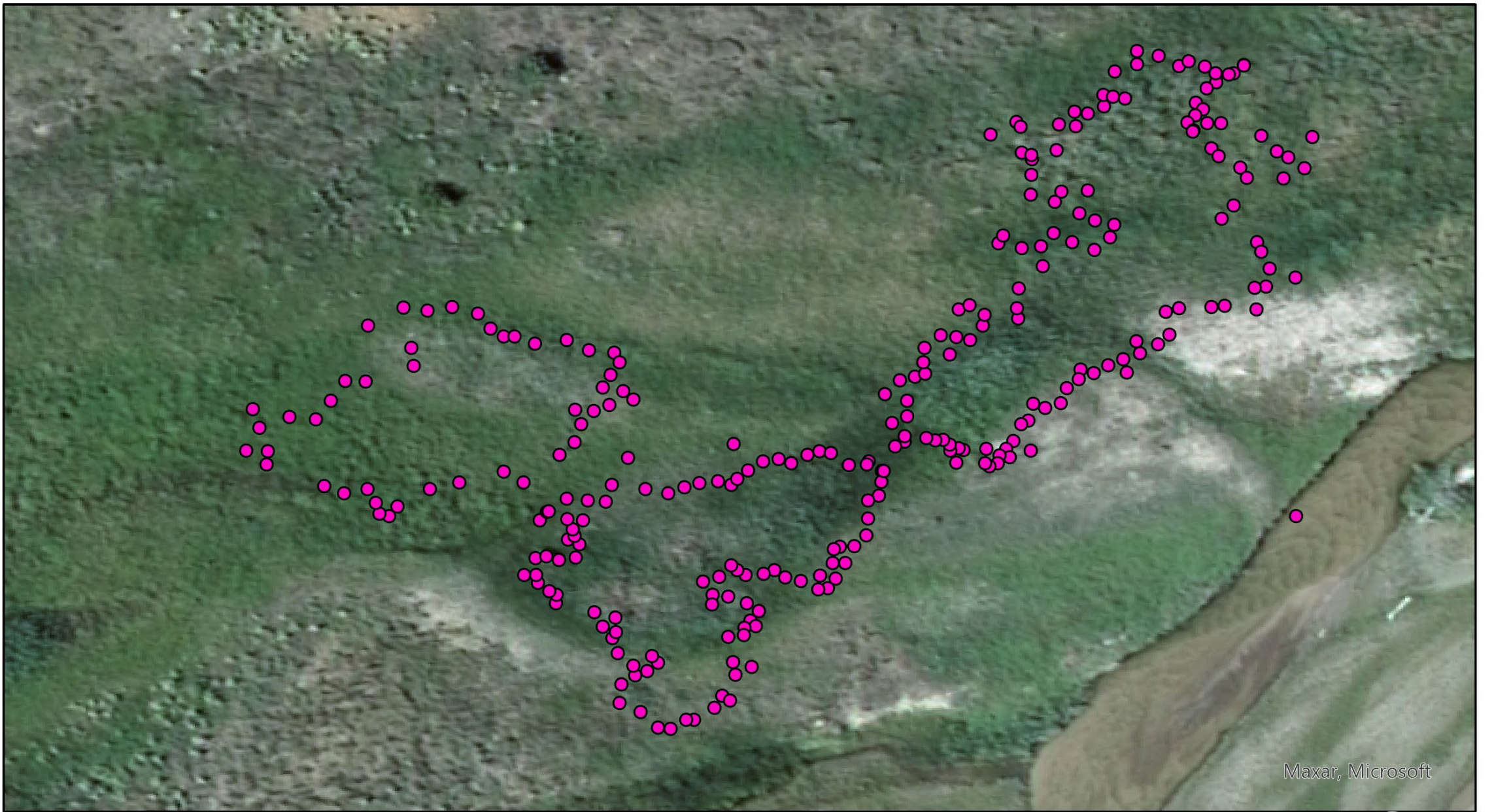
# Treatments

Site name	Spring herbicide	Fall herbicide	Cleared/disked fall 2021
Plum Creek	No	Yes	No
Fort Kearny	Yes	Yes	No
Chapman	Yes	Yes	Yes



# Field mapping & assessment methods

- 50 *Phragmites* patches sampled at each site
  - 25 herbicide / 25 NO herbicide
- Latitude, longitude, and elevation at patch boundaries
- Water surface elevations

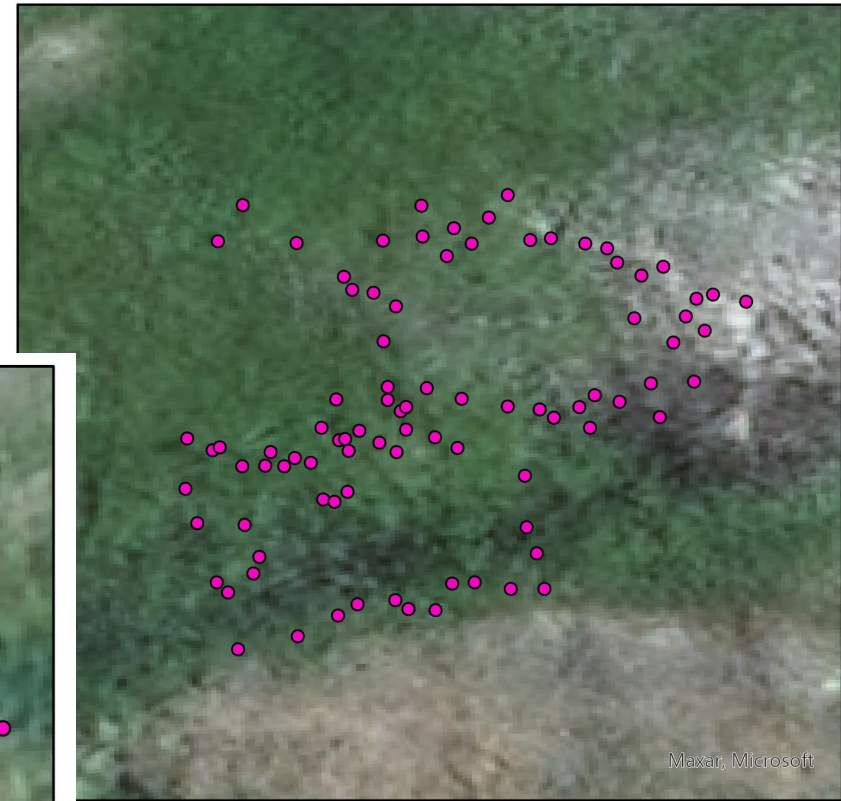


0 25 50 100 Feet



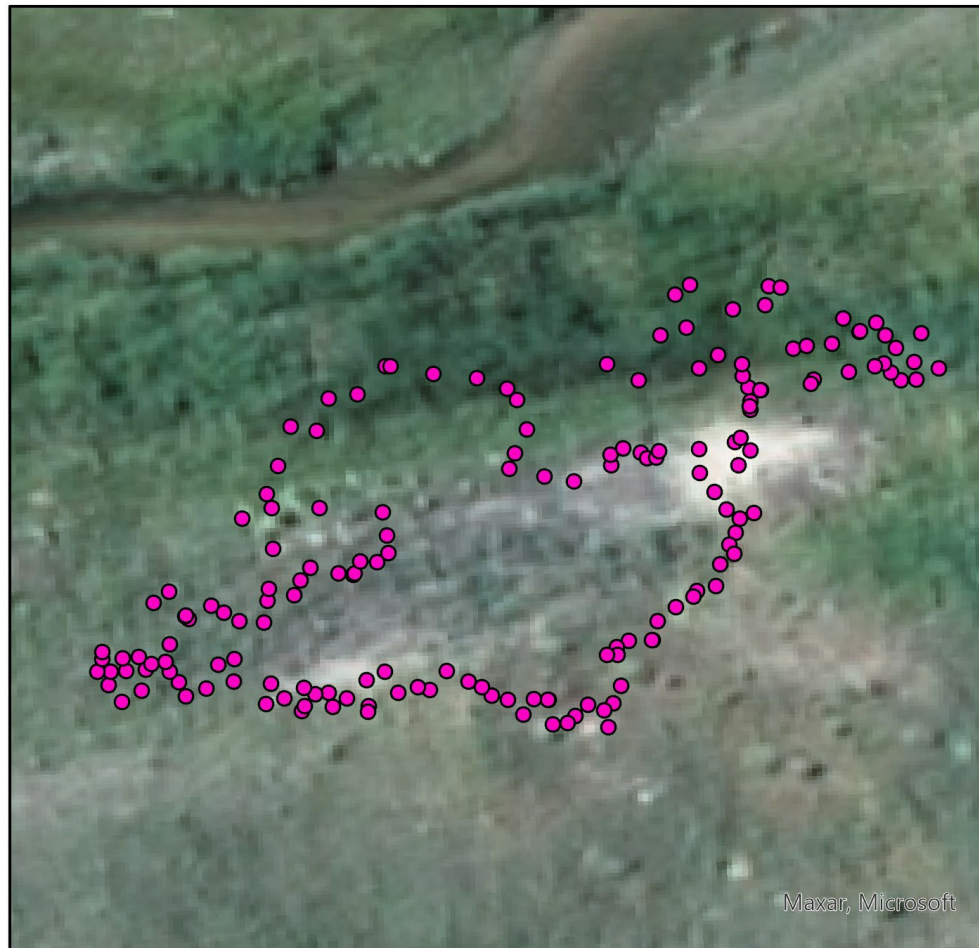
0 5 10 20 Feet

Maxar, Microsoft



0 5 10 20 Feet

Maxar, Microsoft



0 5 10 20 Feet

Maxar, Microsoft



# Additional metrics collected

- Maximum *Phragmites* height (feet)
- *Phragmites* stem density (low/medium/high)
- Other plant cover (low/medium/high), and dominant species recorded
- Presence of previous year's stems (yes/no)
- Condition (greenness ranking low/medium/high)
- Life stage (elongation/reproduction/seed maturation/post-reproduction)
- Stolon presence/absence and length (feet)



## Repeat sampling frequency

1. Pre-spring herbicide treatment – COMPLETED Jun 2022.
2. Post-spring herbicide treatment / Pre-fall herbicide treatment – PLANNED Jul & Aug 2022.
3. Post-fall herbicide treatment – PLANNED Sep & Oct 2022\*.



Questions/Discussion

