



Phragmites removal and site restoration at Schmeckle Reserve

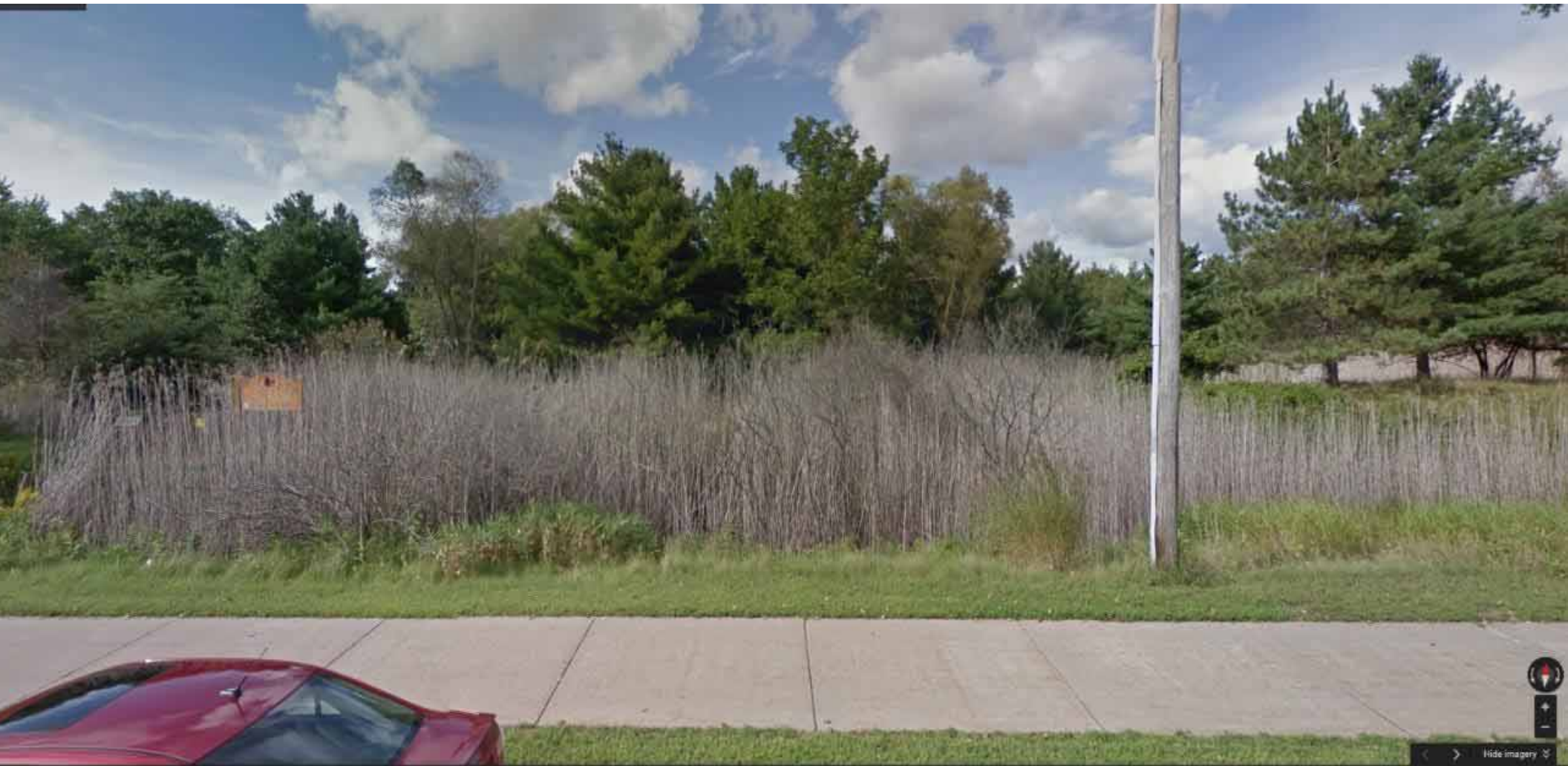
Paul Skawinski

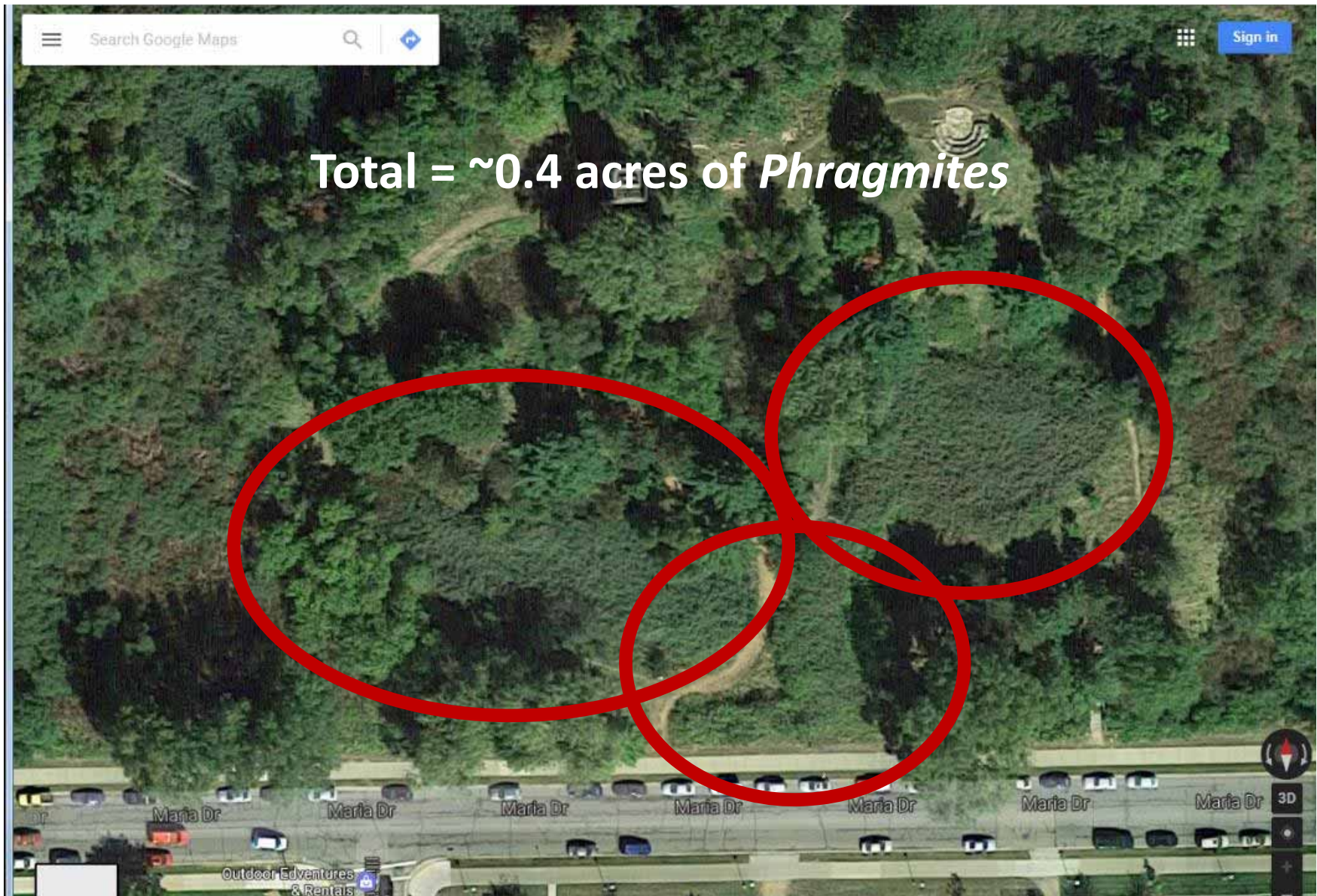
UW-Extension Lakes Program

Friends of Schmeckle Reserve volunteer









Total = ~0.4 acres of *Phragmites*





Herbicide Treatments

Imazapyr foliar treatments

Fall 2014

Fall 2015

DNR-contracted applicator (Great Lakes Restoration Initiative funding)



Winter/spring 2016

Clear dead Phragmites stems from previous two years

Begin cursing abnormally wet year

Manually remove remaining live shoots


Native seed bank study (UWSP student Jacob Cerminar)

Contract with two local nurseries to provide plugs (8,000)
and seeds (36oz)

Huge discounts from nurseries – thank you to J&J Aquatic Nursery
and Prairie Moon Nursery!







Seedbank study – Winter 2015-16

19 species germinated from soil samples collected within *Phragmites* stands

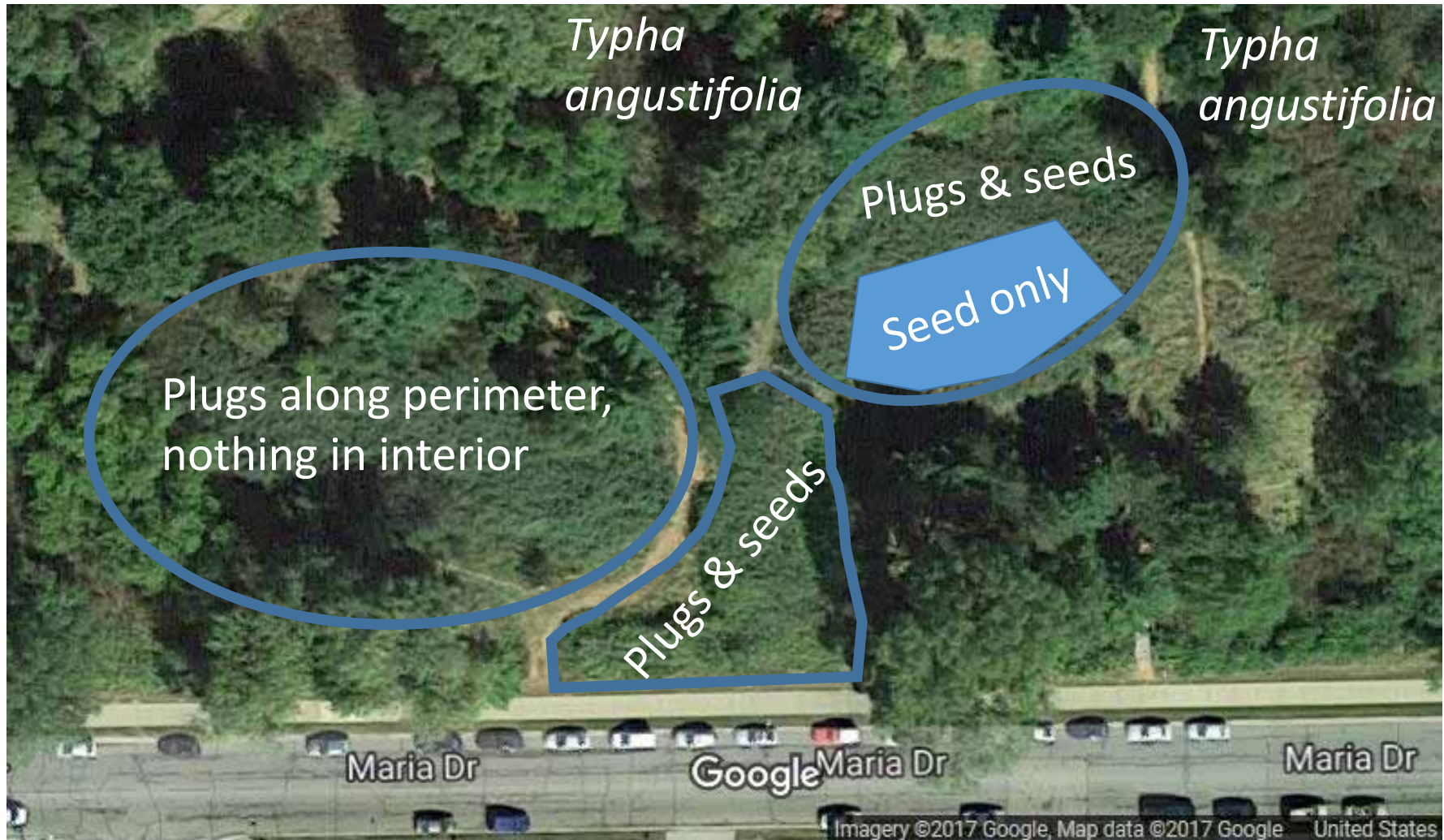
Mostly weedy, introduced species
(Canada thistle, butter and eggs...)

Some native bedstraws, stinging nettle

Seedbank study – Winter 2015-16



Spring 2016: Split into three treatment areas





Summer 2016

Plant 8,000 plugs

Continue removing new shoots of *Phragmites* as they come up

Continue cursing abnormally wet year

June 2016



June 2016



Deer netting

Very few grasses installed to avoid confusion with Phragmites shoots



These blazing stars are delicious! Thanks Paul – I owe you one!



June 2016



June 2016



Continue cursing abnormally wet year



Fall 2016

Continue removing shoots of *Phragmites* as they come up

Remove narrow-leaf cattail shoots and cut seed heads of nearby stands

Plant 195 broad-leaf arrowhead tubers

Broadcast 36oz of purchased seeds

Broadcast 11.36oz of seed from home



Fall 2016



Fall 2016



Fall 2016



Fall 2016



September 2016



March 2016



Spring 2017



July 2017: Seed-only Area



July 2017: Seed-only Area



July 2017: Plugs & Seed Area



July 2017: Plant Inventory

Species observed: **86**

Planted (seeds or plugs): **45**

“Volunteers”: **41**

(5 invasive = *Typha angustifolia*, *Phragmites australis*, *Frangula alnus*, *Lythrum salicaria*, *Phalaris arundinacea*)

6 other non-native species

October 2017: Plugs & Seed Area





Beginning to test simple hand removal against spade-cutting (Webinar by Lynn Short, Humber College)



Beginning to test simple hand removal against spade-cutting



Current UW-Stevens Point Student Projects

- Manual removal via spade vs. hand-pulling – Dylan Alsbach
- Seed vs. seed + plug (quadrats) – Michala Feigal
- Selective Imazapyr via “bloody glove technique” – Emily Gryga



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