

Grecian Foxglove Management Success: A Collaborative Effort

Emilie Justen, Minnesota Department of Agriculture

Lynette Anderson, Belwin Conservancy



Grecian foxglove history

- MN Noxious Weed Eradication List
- Documented for many years in the Afton area
- Brought to North America as an ornamental plant, escaped cultivation

Grecian foxglove biology

- Perennial
- Produces rosettes in the fall, flowers and seeds in its second year
- Seeds stay viable for ~5 years







Management difficulties

- Fuzzy hairs on stems and leaves prevent penetration of herbicide
- Produces numerous seeds that stay viable; seeds have hard coating
- Poisonous! Makes pulling dangerous
- Overtakes grasslands



Management strategy

- Focus on prevention of seed formation



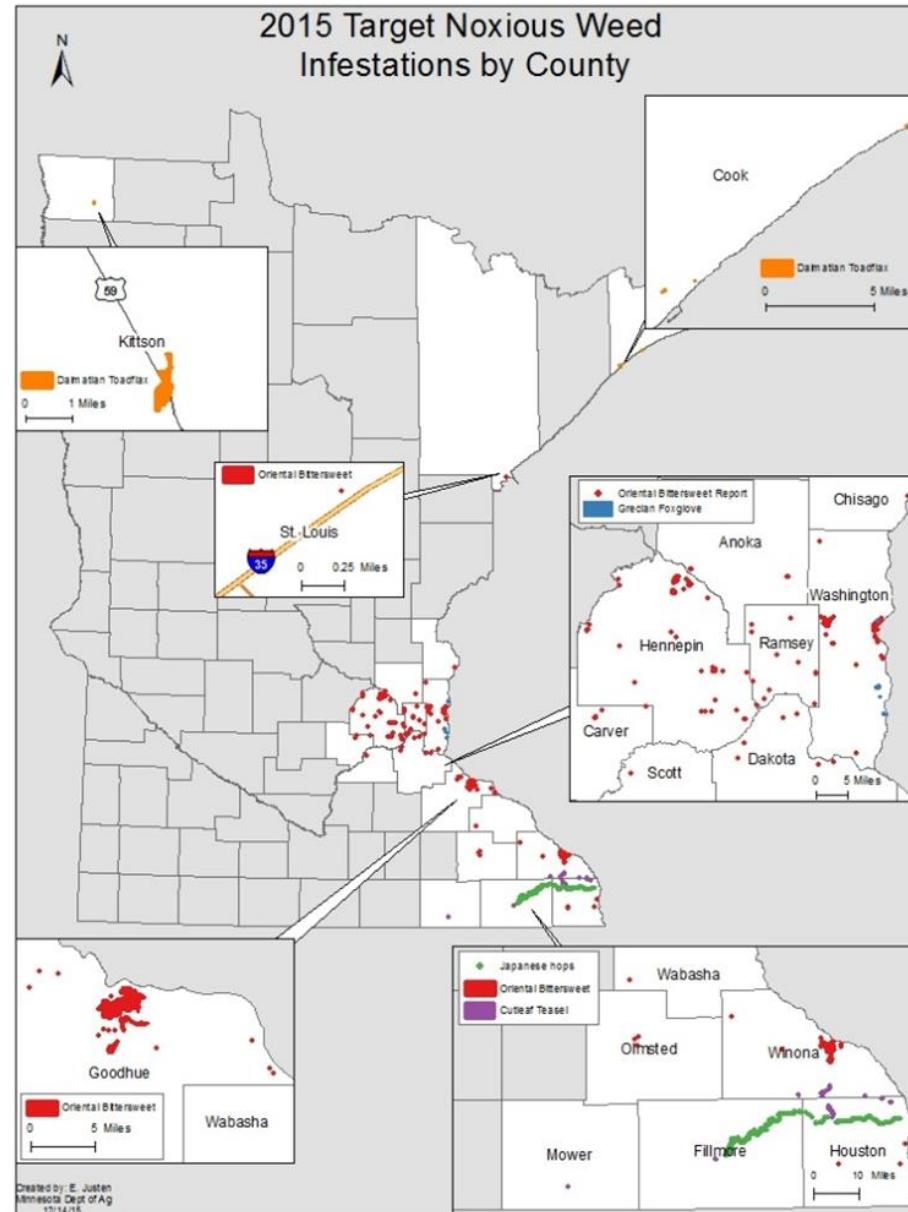
History – MN Dept of Ag (MDA)

- MDA mapped infestation and listed as noxious weed on the Eradicate List in 2011
- Funding from the Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizens Commission on Minnesota's Resources (LCCMR) began in 2013
- 193 acres treated in 2014 and 2015

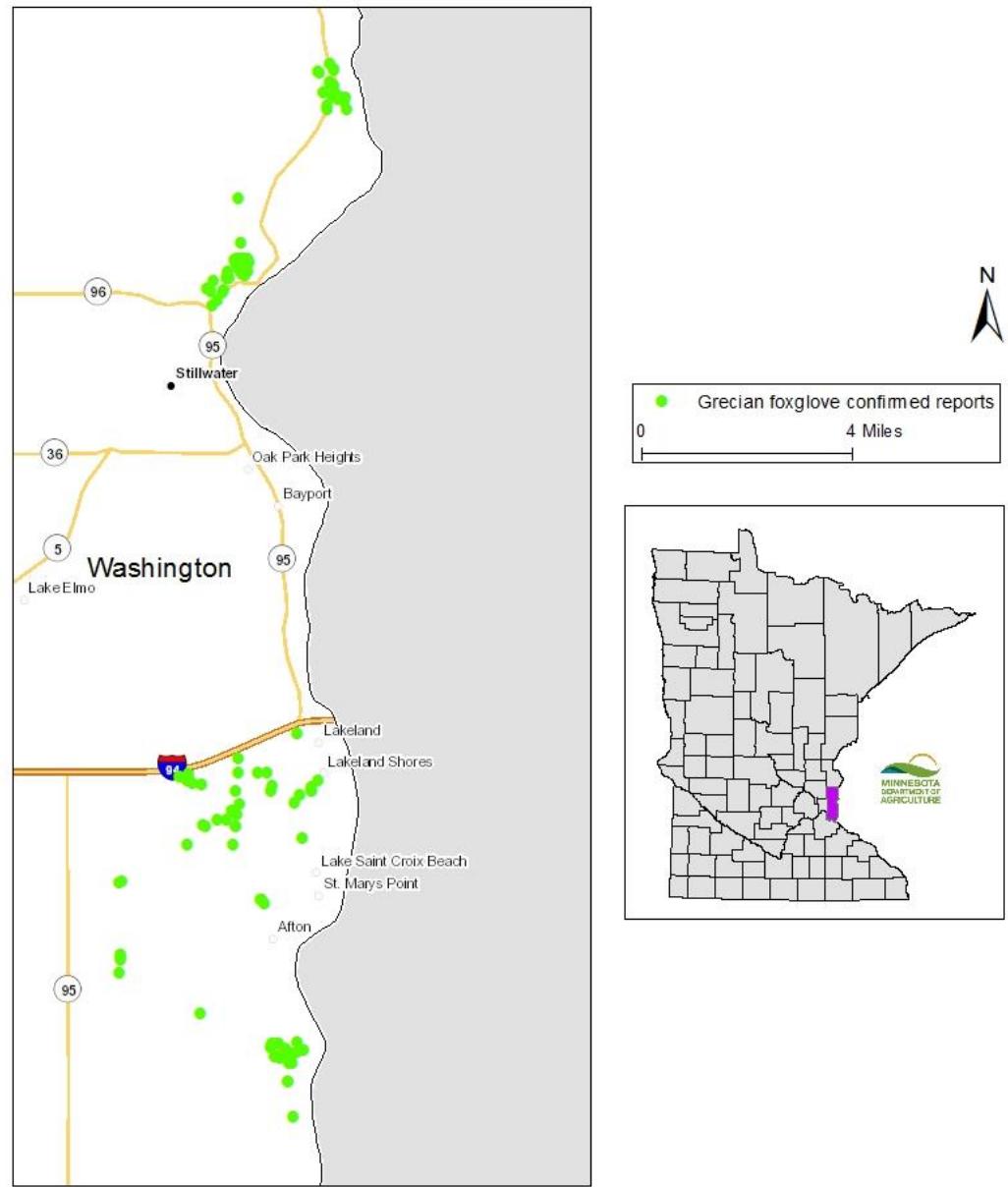


Elimination of Target Invasive Plant Species Grant

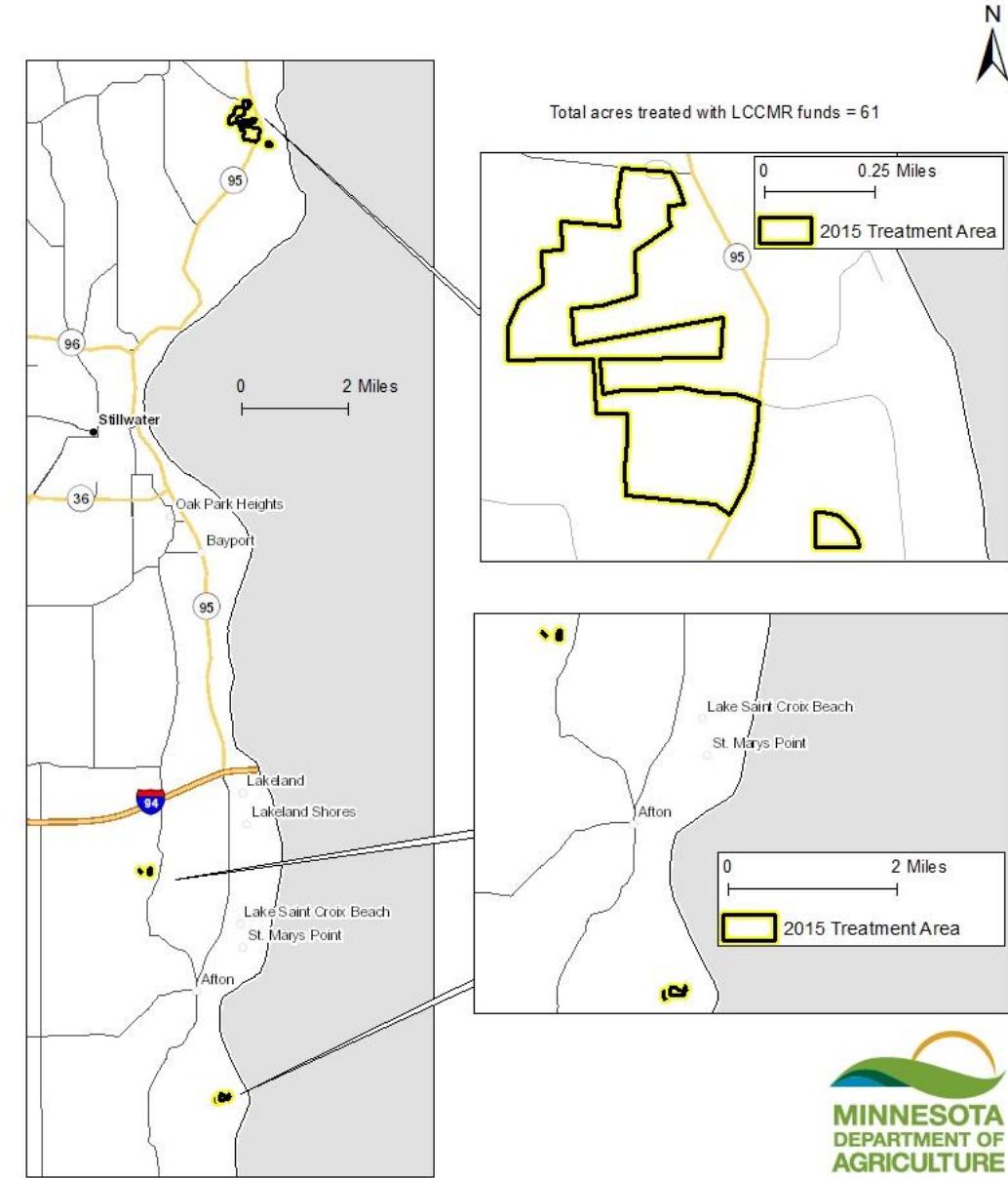
- Statewide program that allows project partners to work across public and private land
- Program to begin eradication efforts of targeted species on Minnesota's Noxious Weed Eradicate List



Grecian Foxglove 2016 Confirmed Reports Washington County, MN



Grecian Foxglove 2015 Treatment Area Washington County, MN



Treatment Plans

Treatment Timing

2014 Treatments		
Dates	Phenology	Results
5/28/2014	Rosettes/bolting	75% reduction
9/29/2014	Flowers/fruit/rosettes	80% reduction

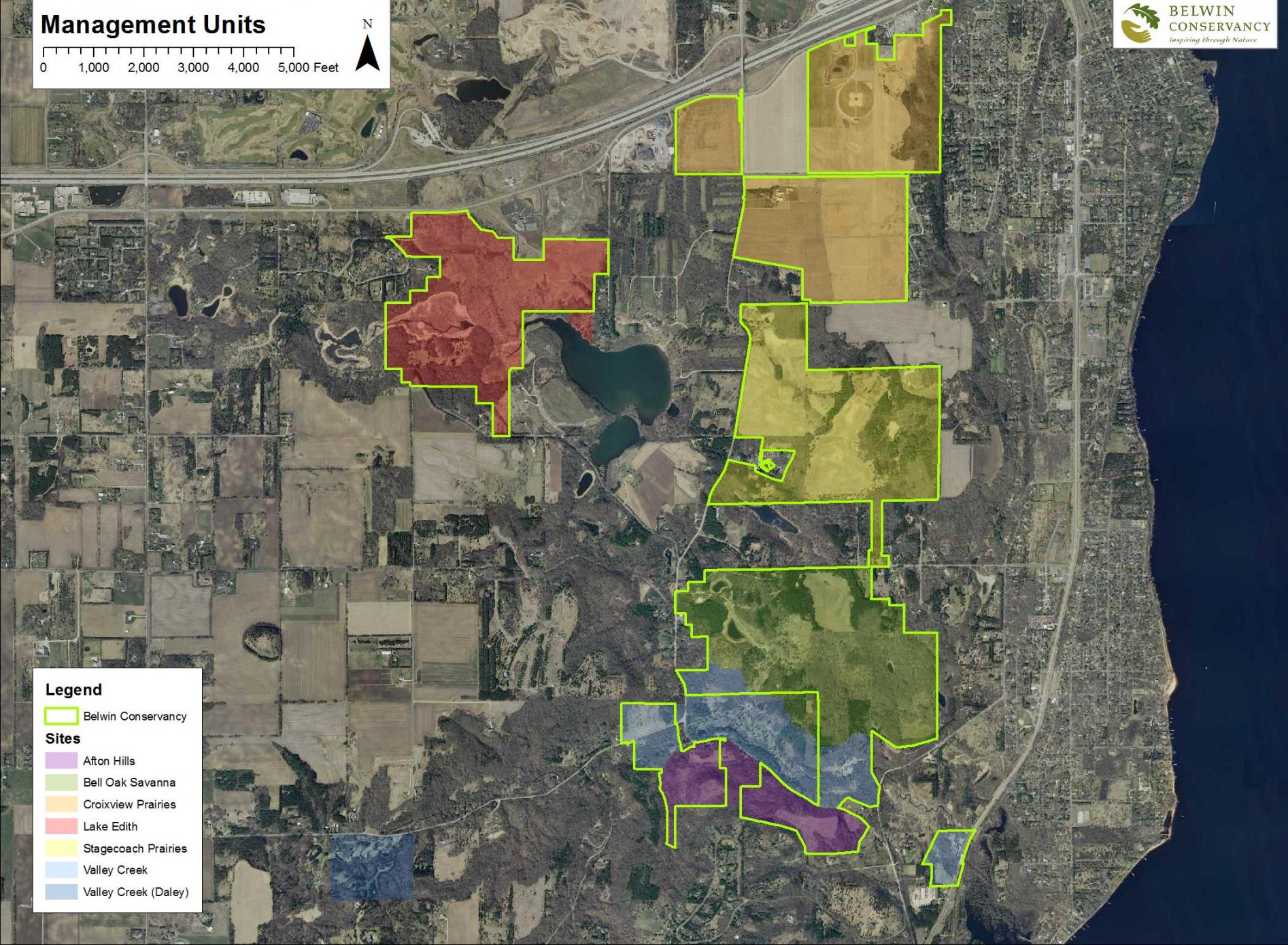
2015 Treatments		
Dates	Phenology	Results
9/15/2015	Flowers/fruit/rosettes	50% reduction
9/21/2015	Flowers/fruit/rosettes	50% reduction

2016 Monitoring		
Dates	Phenology	Results
6/1/2016	Rosettes/bolting	plan for spring treatment
8/17/2016	Rosettes/in fruit	plan for spring treatment
8/23/2016	Rosettes/in fruit	plan for spring treatment

Management Units

0 1,000 2,000 3,000 4,000 5,000 Feet

N



Legend

Belwin Conservancy

Sites

Afton Hills

Bell Oak Savanna

Croixview Prairies

Lake Edith

Stagecoach Prairies

Valley Creek

Valley Creek (Daley)

Stagecoach Prairies

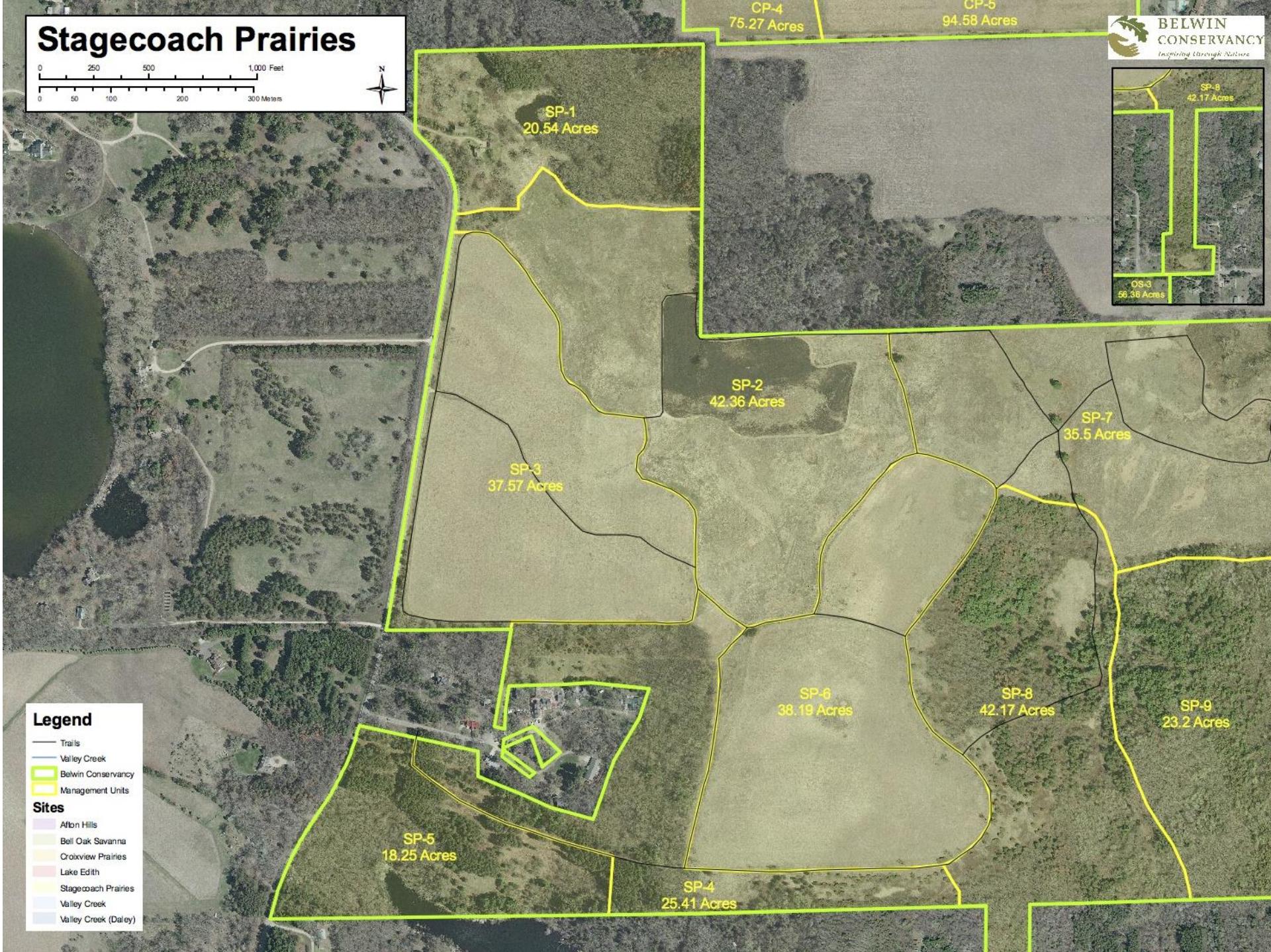
0 250 500 1,000 Feet
0 50 100 200 300 Meters



CP-4
75.27 Acres

CP-5
94.58 Acres

BELWIN
CONSERVANCY
Inspiring Through Nature



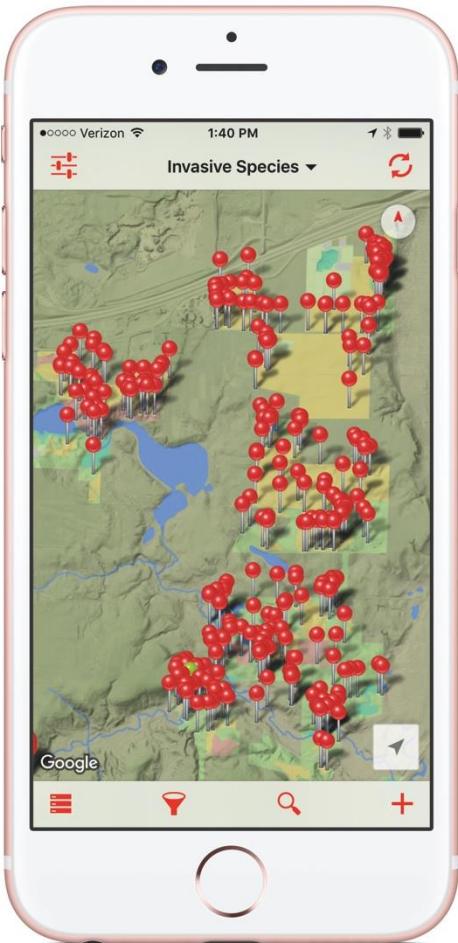












Fulcrum - Mobile Location | Ned

<https://web.fulcrumapp.com/data/c0a3e8cc-d846-4145-b6f9-09a09564ee6f?search=Grecian%20Foxglove#split/mapbox-streets/14/44.93281...>

Invasive Species

status: No Status Filter assigned to: No Assigned To Filter project: No Project Filter

Apply Filter Remove Filter 136 visible records

Search: Grecian Foxglove

Map view showing locations of Grecian Foxglove across a geographic area. The map includes labels for StoneRidge Golf Club, Hudson Rd S, 194, Belwin Conservancy, Lakeland, Lakeland Shores, Lake Edith, Walker Field, 10th St S, 15th St S, 157th St S, NEAL AVE S, NEAL AVE N, MIDWEST TRAIL, INDIAN TRAIL S, STAGECOACH TRAIL S, VALLEY CREEK TRAIL, RAGING RIVER TRAIL S, and Lake Saint Croix Beach. Numerous red location markers are scattered across the map, primarily in the central and southern areas.

↔	Status	Version	Created	Updated	Created By	Updated By	Assigned	Project	Species	Date First Identified	Visit
+	Active	2	2015-09-16 13:42 -05:00	2016-03-15 16:01 -05:00	Shelby Dupre	Ned Phillips			Grecian Foxglove	2015-09-16	1 item
+	Active	2	2015-09-11 09:57 -05:00	2016-03-15 16:01 -05:00	Shelby Dupre	Ned Phillips			Grecian Foxglove	2015-09-11	0 items
+	Active	2	2015-07-21 14:47 -05:00	2016-03-15 16:01 -05:00	Lynette Anderson	Ned Phillips			Grecian Foxglove	2015-07-21	1 item
+	Active	3	2015-07-15 11:09 -05:00	2016-03-15 16:01 -05:00	Lynette Anderson	Ned Phillips			Grecian Foxglove	2015-07-15	1 item
+	Active	2	2015-07-14 14:23 -05:00	2016-03-15 16:01 -05:00	Lynette Anderson	Ned Phillips			Grecian Foxglove	2015-07-14	1 item
+	Active	2	2015-07-14 13:38 -05:00	2016-03-15 16:01 -05:00	Lynette Anderson	Ned Phillips			Grecian Foxglove	2015-07-14	1 item
+	Active	2	2015-07-14 13:22 -05:00	2016-03-15 16:01 -05:00	Lynette Anderson	Ned Phillips			Grecian Foxglove	2015-07-14	1 item
+	Active	2	2015-07-02 12:55 -05:00	2016-03-15 16:01 -05:00	Shelby Dupre	Ned Phillips			Grecian Foxglove	2015-07-02	1 item

Collaborations – Washington Conservation District

- Workshops
- Working with landowners
- Mapping and reporting

Collaborations – MN Dept of Transportation

- Mapped infestations along state highways in Washington County
- Reporting infestations to Eddmaps
- Treating infestations along state highways

Collaborations – MN Dept of Natural Resources

- Mapped infestations at Afton State Park
- Aggressively controlled using several methods:
 - Pulling while flowering
 - Herbicide applications to rosettes in spring and fall

Collaborations - Landowners

- With help from LCCMR grant on private lands, landowners are able to stay ahead of infestations
- More landowners are identifying and controlling GF on their own land

- With collaborative effort from many groups, GF infestations have been reduced

Moving Forward

- Continued funding until 2019 through LCCMR
- Assessments of treatments
- Additional partnerships