

Grecian Foxglove Management Success: A Collaborative Effort

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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



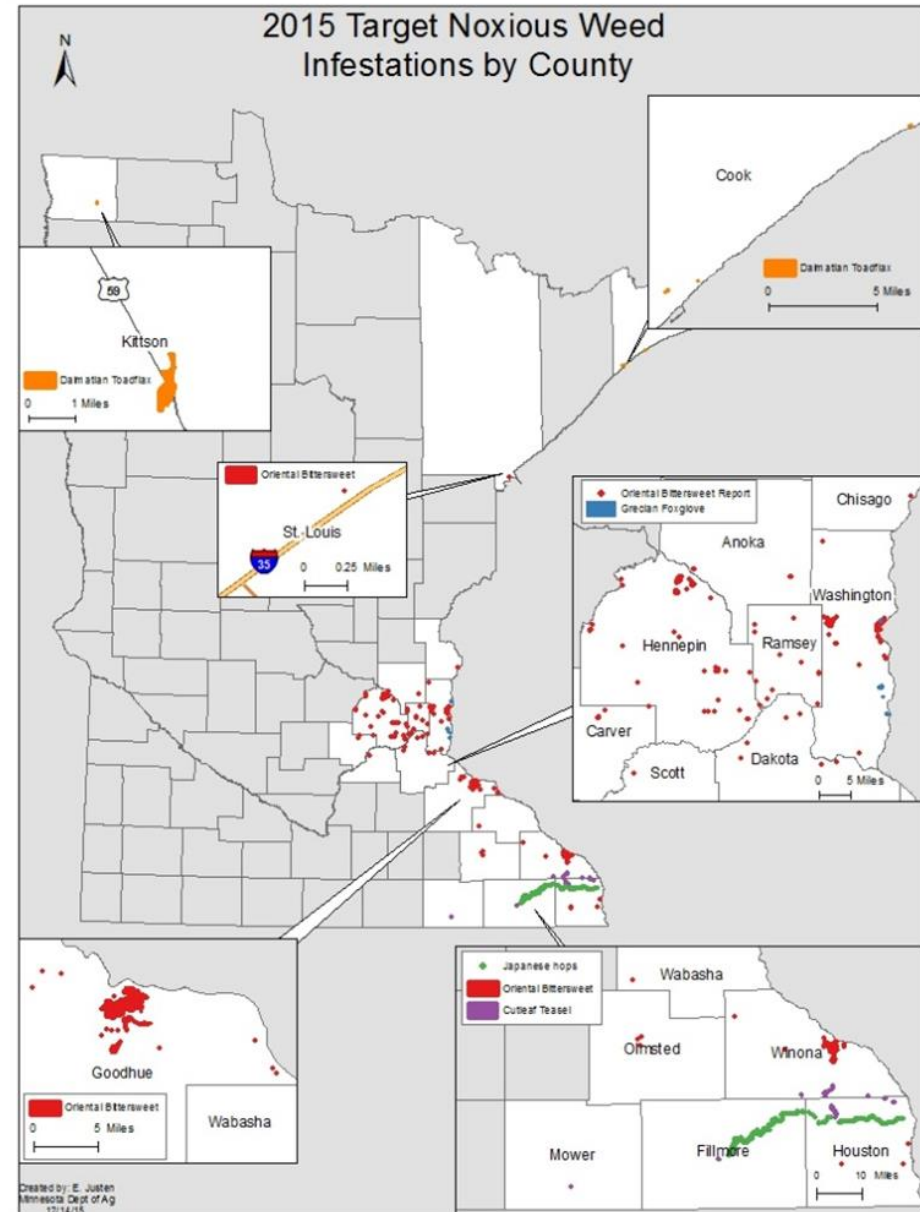
History – MN Dept of Ag (MDA)

- 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

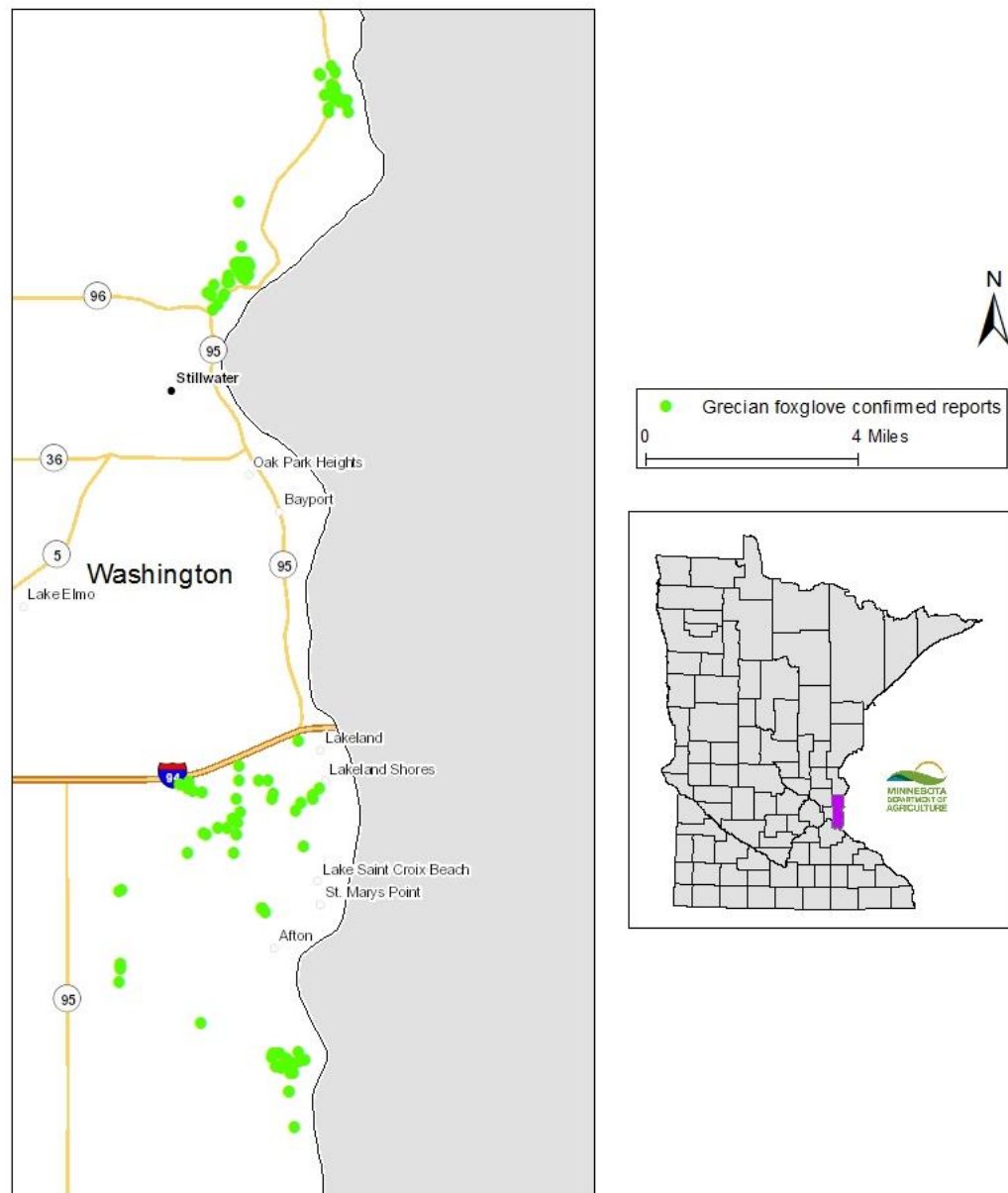


Elimination of Target Invasive Plant Species Grant

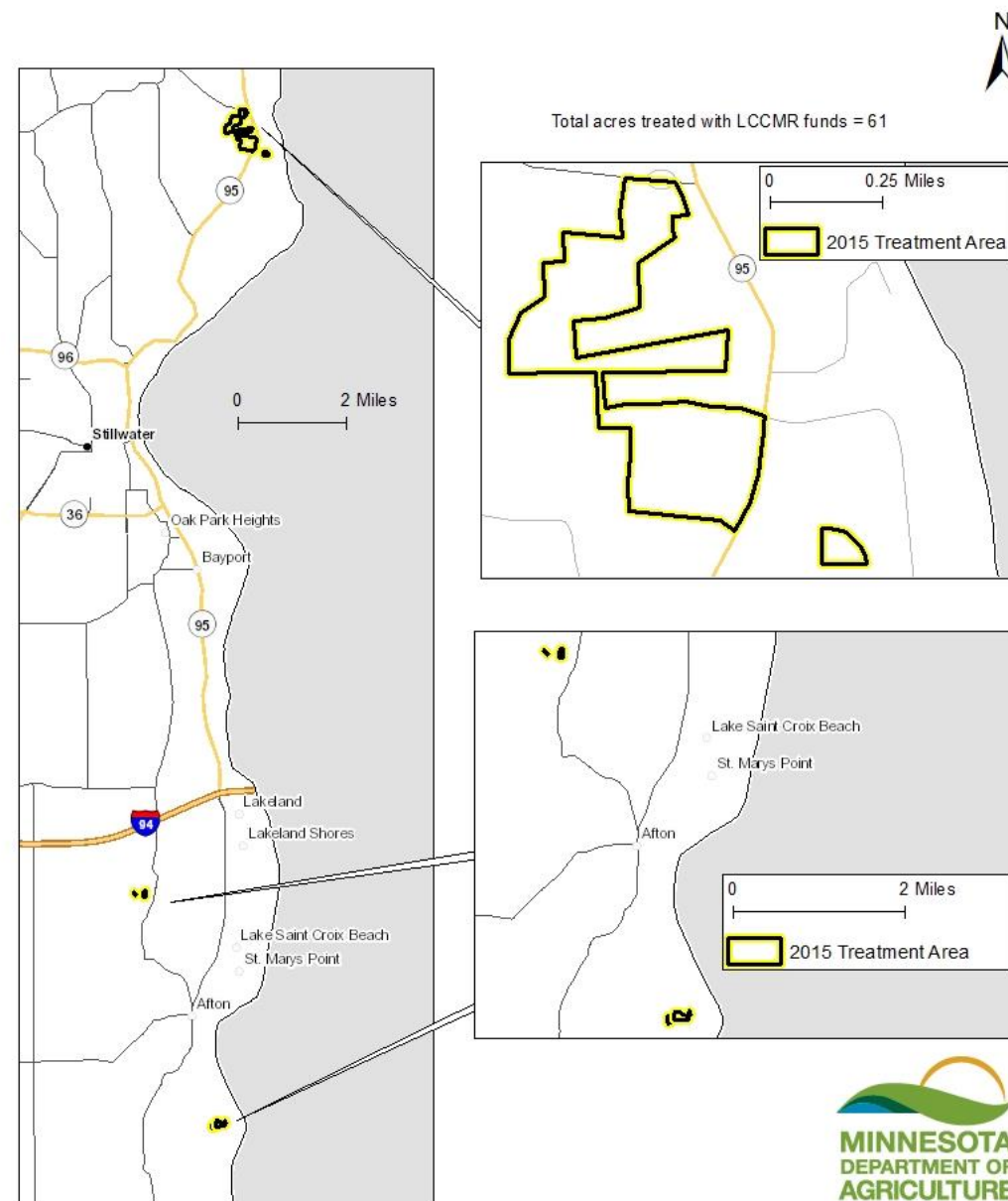
- Statewide program that allows project partners to work across public and private land
- Program to begin eradication efforts of targeted species on Minnesota's Noxious Weed Eradicate List



Grecian Foxglove 2016 Confirmed Reports Washington County, MN



Grecian Foxglove 2015 Treatment Area Washington County, MN



Treatment Plans

2015 Treatments and Timelines										
Grecian Foxglove		April	May	June	July	August	September	October	November	Dec-March
Treatment	Foliar Herbicide									
	Cut flower stalks									
Flowering Period										
Survey Timing										

[illegible]

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	Roesttes/in fruit	plan for spring treatment

Management Units

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





Legend

 Belwin Conservancy

Sites


 Afton Hills

 Bell Oak Savanna

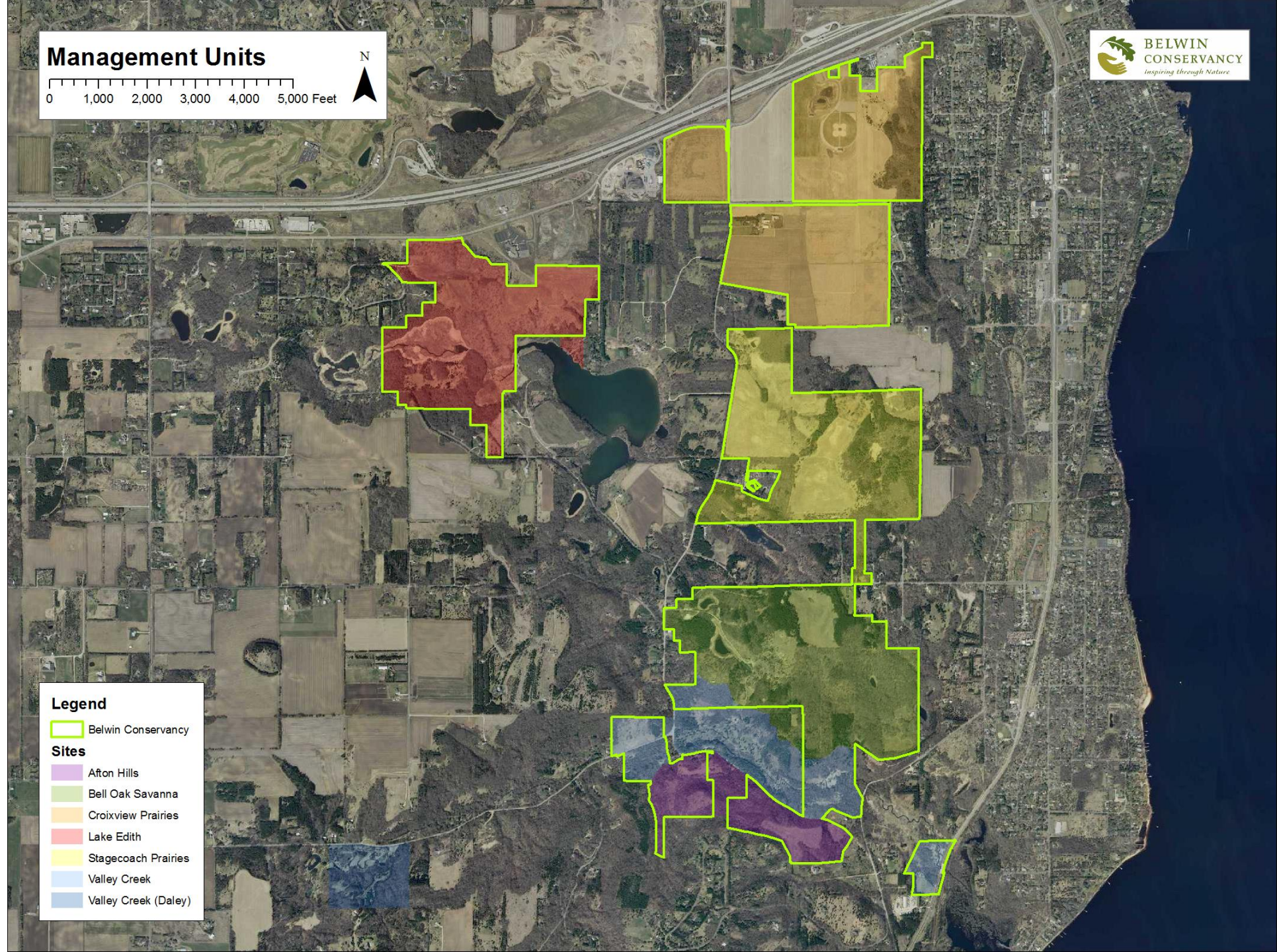
 Croixview Prairies

 Lake Edith

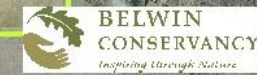
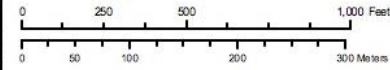
 Stagecoach Prairies

 Valley Creek

 Valley Creek (Daley)



Stagecoach Prairies



Legend

- Trails
- Valley Creek
- Belwin Conservancy
- Management Units

Sites

- Afton Hills
- Boli Oak Savanna
- Croixview Prairies
- Lake Edith
- Stagecoach Prairies
- Valley Creek
- Valley Creek (Daley)

SP-1
20.54 Acres

SP-2
42.36 Acres

SP-3
37.57 Acres

SP-7
35.5 Acres

SP-6
38.19 Acres

SP-8
42.17 Acres

SP-9
23.2 Acres

SP-5
18.25 Acres

SP-4
25.41 Acres

CP-4
75.27 Acres

CP-5
94.58 Acres

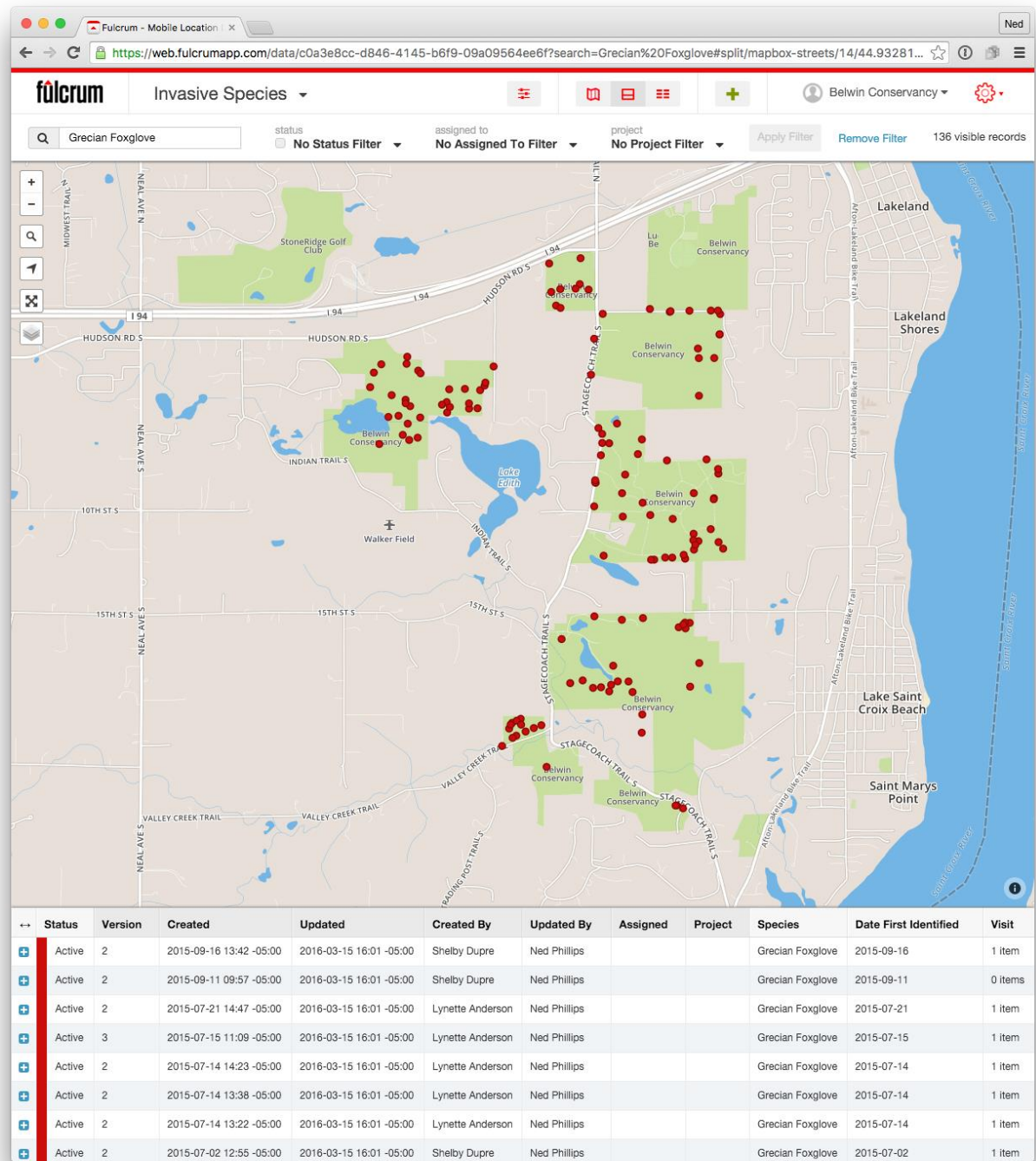
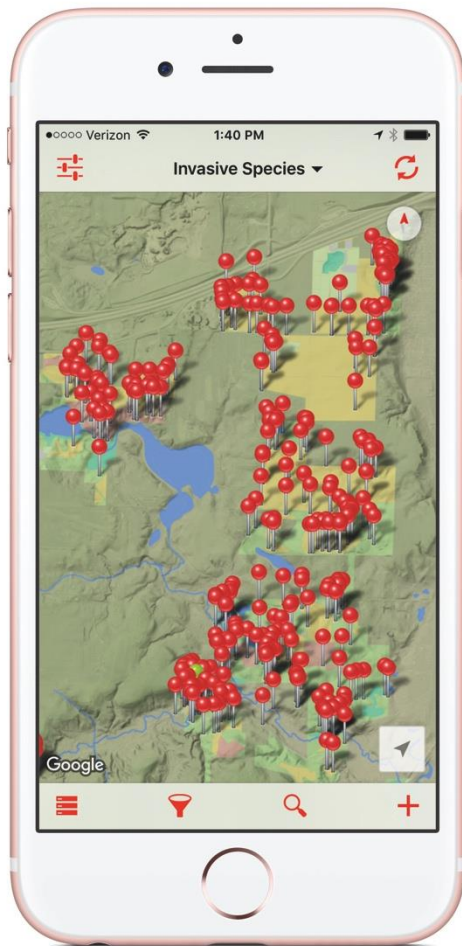












Collaborations – Washington Conservation District

- 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