

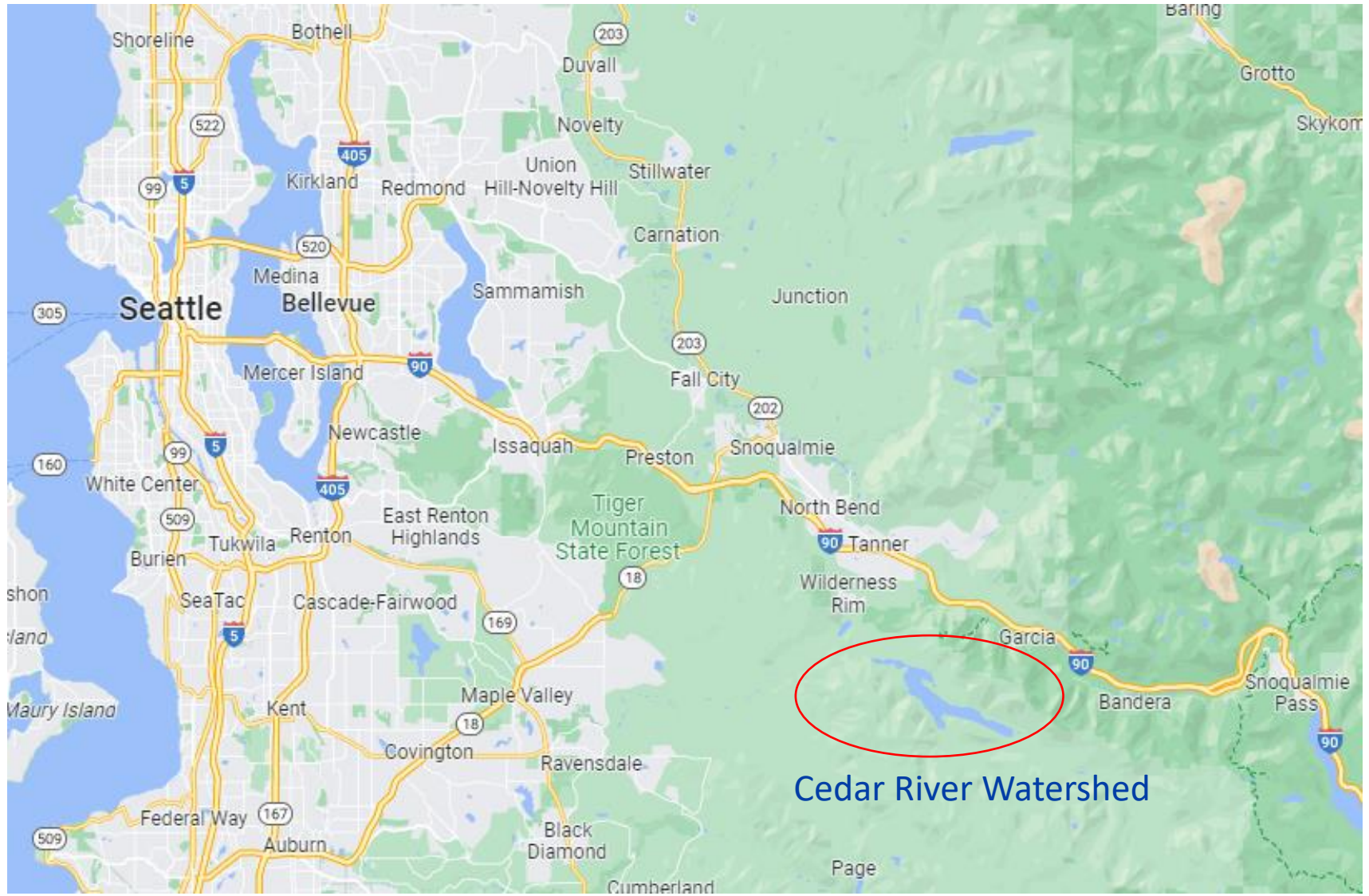
Knotweed and Herbicide Use in the Cedar River Municipal Watershed

Briefing to Seattle City Council's Transportation and Seattle Public Utilities Committee

June 20th, 2023

Purpose of Legislation

- Renew 3-year authority to control knotweed in the Cedar River Watershed with imazapyr
- 4 previous ordinances have been passed allowing for imazapyr use in the watershed
- Amount of imazapyr used has decreased with each ordinance period and is expected to remain low



History of Invasive Species Program and Knotweed

1989

- SPU enacts Secondary Use Policies, which prohibits use of herbicides in Cedar River Municipal Watershed.

2002

- Staff finds knotweed and begins control efforts by covering and digging.

2007

- SPU initiates Invasive Species Program in watershed (funded as CIP).

2008

- Botanist surveys find multiple additional knotweed patches. SPU continues treating by covering. Mechanical treatment concluded to be ineffective.

2010-2021

- City Council passes four consecutive 3-year ordinances to allow use of imazapyr in watershed. Imazapyr treatment leads to significant decline in knotweed.

2022

- No treatment year, surveys conducted and knotweed distribution maps updated.

2023

- SPU pursuing renewed ordinance authority to continue treating knotweed at maintenance levels in the watershed.

Knotweed Program Success



Knotweed coverage and herbicide use have decreased 95% since 2011



Knotweed in watershed, 2011.

Ecological Reasons to Control Knotweed

Dense stands crowd out native vegetation

Poor erosion control



Knotweed along Cedar River downstream of watershed, 2010.

Civic Reasons to Control Knotweed

Control is legally required for knotweed on the Cedar River and its tributaries

Imazapyr and Human Health



Imazapyr inhibits an enzyme found only in plants



Imazapyr and Pollinators

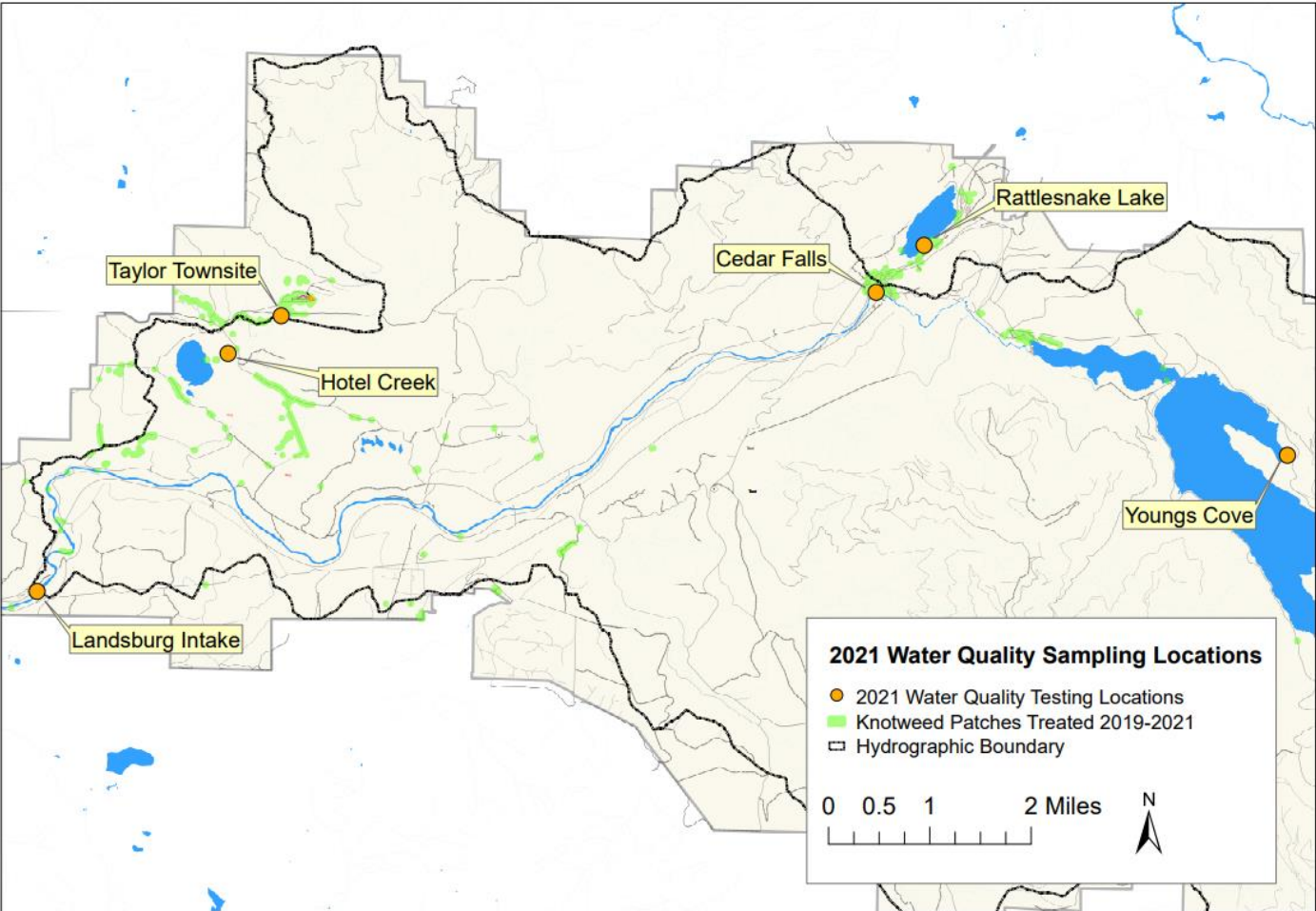


SPU does not spray plants with pollinators present



Stunted knotweed after one year of treatment.

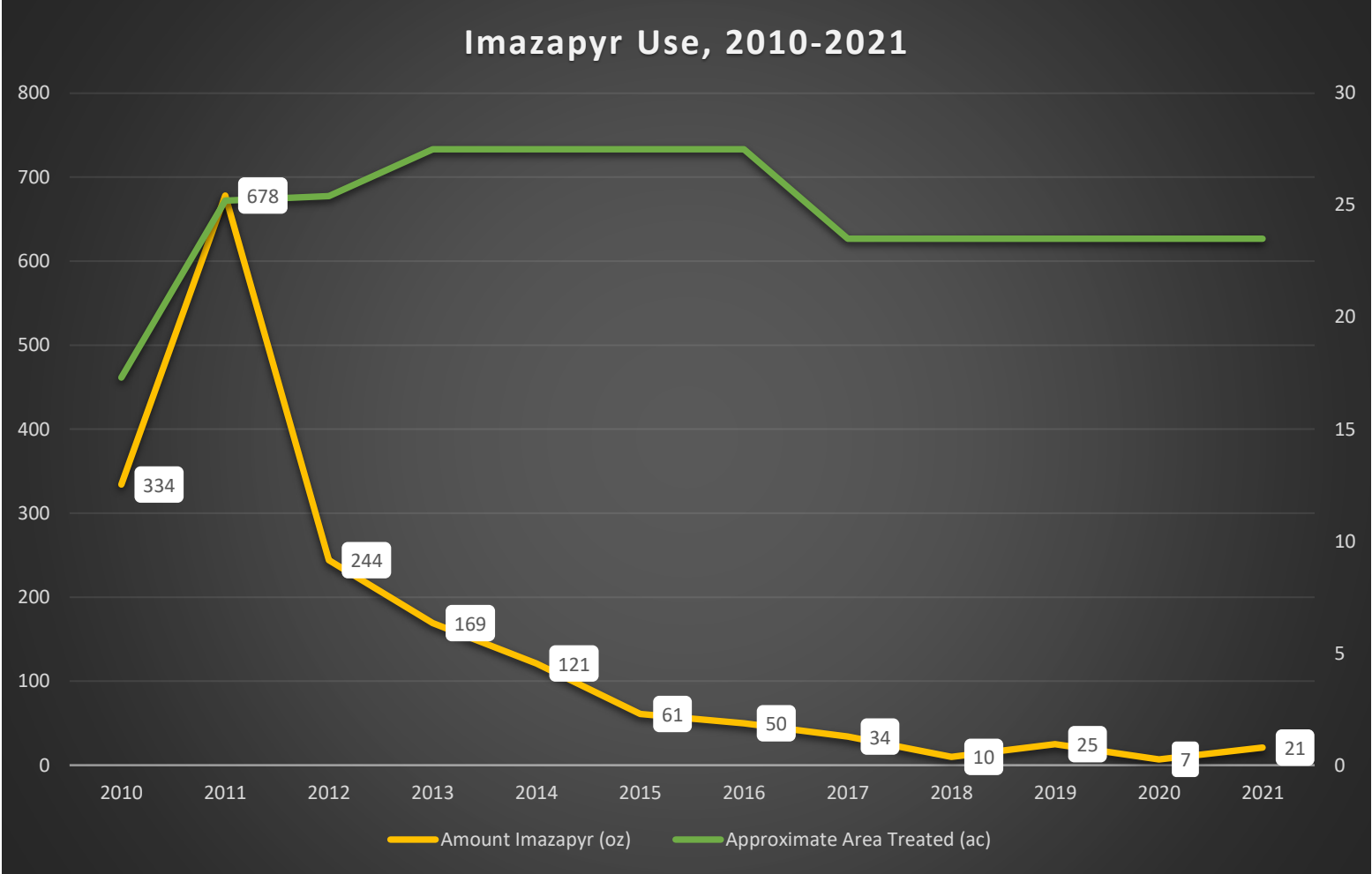
Environmental Protection



SPU developed new water quality protocol in 2021, more samples with no detections

Decrease in Imazapyr Use

An estimated 20 ounces of imazapyr per year will be needed to maintain control of the population





Previously Treated Knotweed

Maintenance treatments contain knotweed and keep total herbicide use low

Knotweed at Taylor Townsite, 11 years of treatment later.

12



Newly Detected Knotweed

Surveys occasionally result in newly detected patches due to the complex landscape of the watershed

Knotweed at Masonry Dam found during 2022 surveys.

Long-Term Outlook

Knotweed may never be eradicated from watershed

3-year ordinances provide accountability for SPU



Flowering patch found at Taylor, 2022.