Summit CWMA Yellow Toadflax and Spurge 2024 ISM Control Program Report

January 2025

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Ecology Bridge LLC

PROJECT OVERVIEW

The Summit CWMA Yellow Toadflax and Spurge Control Program is a multijurisdictional effort to control yellow toadflax (*Linaria vulgaris*), a Class 1B noxious weed, Myrtle spurge (*Euphorbia myrsinites*), a Class 3 noxious weed, and leafy spurge (*Euphorbia esula*), a Class 2 noxious weed. The project area includes one large area (Deer Valley Resort/Bananza Flat to the base of Wasatch State Park) and several smaller areas (Snyderville Basin, 910 Ranch, Toll Canyon, Utah Olympic Park (UOP), King Road and Chalk Creek) in Summit and Wasatch Counties.

Yellow toadflax is common on Bonanza Flat and has spread into the wildlands leading into Wasatch State Park. Myrtle spurge occurs in the state park and in Snyderville Basin and Park City in small populations. Large populations of leafy spurge have been mapped in Wasatch State Park Campground, Dutch Hollow, and Chalk Creek/South Fork. Smaller populations have been mapped in Pinebrook, along East Canyon Creek and at Coyote Canyon.

The main driving force behind this dual county program is concern that extensive recreational trails and their use will carry yellow toadflax and leafy spurge further into Wasatch and Summit County. Partners in Summit and Wasatch counties hope to stop the spread of these species by sharing information and resources.

Yellow toadflax along a social trail leading to the WOW trail-head/parking area.

METHODS

Inventory and Monitoring

Inventory/Mapping In 2024, inventory efforts for new populations of yellow toadflax, Myrtle spurge and leafy spurge were focused along roads, trails, creeks and rivers, and areas adjacent to known populations. The

Leafy Spurge along Chalk Creek just outside of Coalville .

goal of inventory is to identify population distributions and boundaries within the project area so strategic treatment plans can result in cost effective control. Weed distribution and percent cover data are collected in the field using ArcGIS Field Maps and used to direct control efforts.

Monitoring Contractors monitor current populations and areas adjacent known populations. The goal of monitoring is to track population statuses and treatment effects. Additionally, monitoring is used to update EDDMaps data.

Monitoring also includes the use of transects of 70 feet in length monitored with the line intercept method and, at some sites, 2x2 ft plots every 10 feet along the transect. Transects and plots are established to track the changes in weed cover, native plant cover, and plant diversity.

Herbicide Application

Herbicide treatment targets yellow toadflax (Herbicides: Telar or 2,4D x Milestone combo) in the late vegetative and flowering stages, while Myrtle spurge and leafy spurge are treated at all stages prior to holding seed (Herbicides: 2,4D and Milestone).

Mechanical Treatment

Three Myrtle spurge populations at Toll Canyon, Utah Olympic Park and King Road are hand weeded annually due to their more remote locations, small size and minimal cover. Because the percent cover of spurge at these sites is less than 5%, revegetation efforts are in progress.

Biological Control

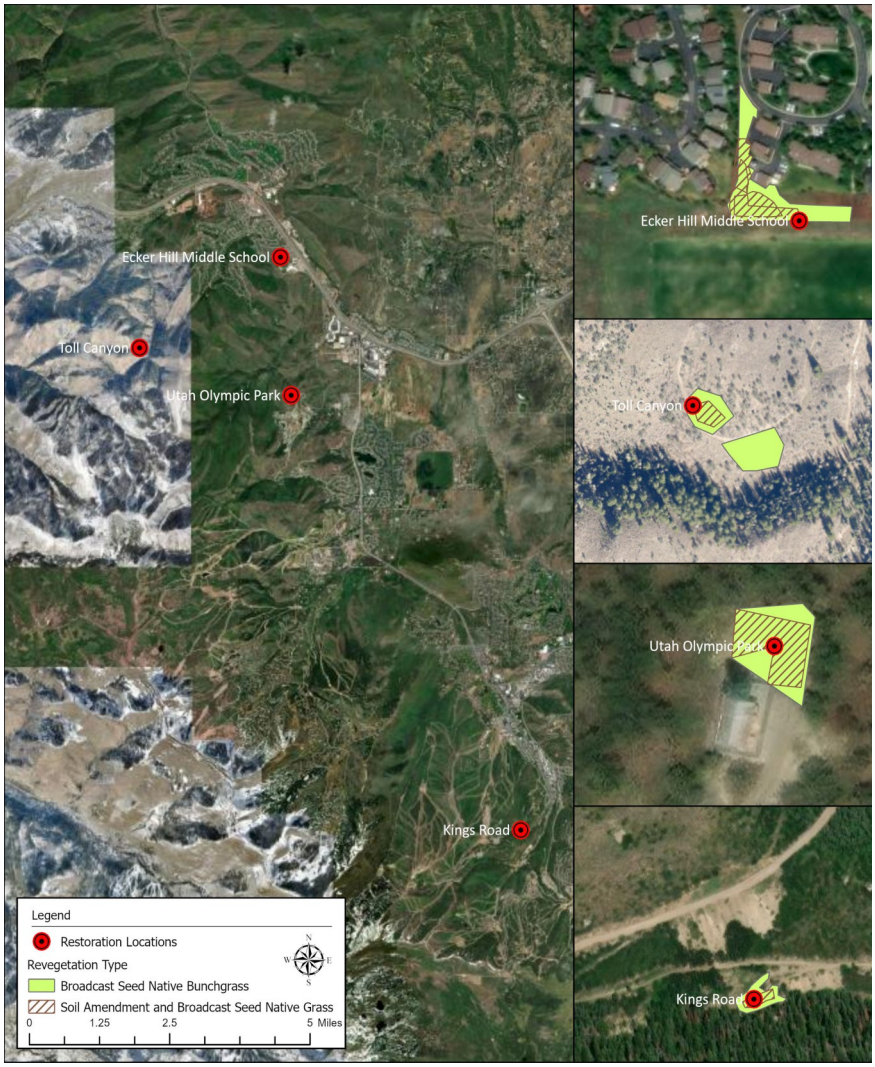
Whenever possible, we aim to partner with the Summit County Weed Supervisor and Utah Weed Supervisors Association to use biological control agents for yellow toadflax and leafy spurge. Unfortunately, leafy spurge biological control agents were not available for this project in 2024 and the timing of flowering of yellow toadflax was out of sync with the timing of biocontrol availability. These higher elevation sites are often barely growing when weevils are available.

Revegetation

Once weed populations have been reduced to less than 20% or large patches of weed free patches develop, native bunchgrass seed mixes are broadcast seeded. Seeding occurs in the fall to take advantage of natural soil moisture during spring snow melt.

When funding allows and soils are poor or previous revegetation efforts have had poor results, soil amendments are applied prior to seeding to increase germination and seedling establishment. Soil amendments generally consist of compost and/or topsoil

Application of a compost:biochar mixture at a rate of 80% compost and 20% biochar is used to address soil limitations preventing native plant establishment after weed control.



Revegetation of leafy spurge treatment areas. No soil amendments were used in 2024 except at the Ecker Hill Middle School site which used a compost/ biochar blend in bare areas.

(80%) mixed with biochar (20%).

At the Ecker Hill Middle School revegetation site, Rocky Mountain penstemon is reestablishing on its own. To increase diversity and pollinator habitat quality at this site, individual wildflowers were seeded into areas of bare ground along with the native bunchgrass. These species included needle and thread Grass (*Hesperostipa comata*), silvery lupine (*Lupinus argenteus*), Rocky Mountain bee plant (*Cleome serrulate*), prairie sage (*Artemisia ludoviciana*), Mexican hat (*Ratibida columnifera*), western yarrow (*Achillea millefolum var. occidentalis*), Lewis flax (*Linum lewisii)* and blanket flower (*Gaillardia aristate).*

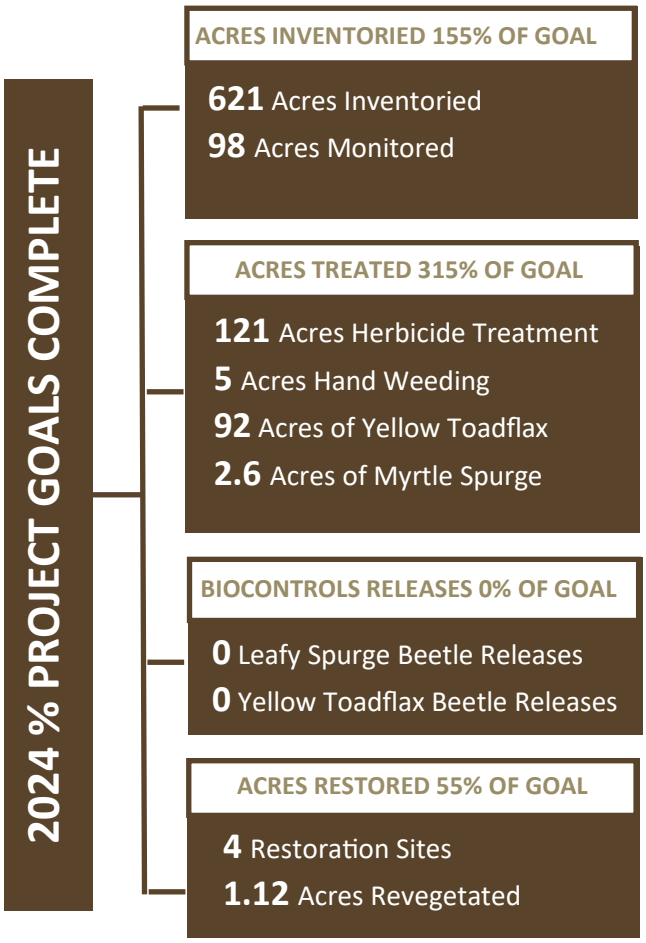
RESULTS AND ACCOMPLISHMENTS

In 2024, inventory for yellow toadflax and leafy and Myrtle spurge were prioritized in the areas adjacent to the Toll Canyon Myrtle spurge population (particularly downslope), a portion of the Deer Valley Resort Trail system, additional trails in Bonanza Flat, and

Foothills Native Bunchgrass Mix		
Common Name	**Latin Name**	**% Mix**
Slender Wheatgrass	*Elymus trachycaulus*	10
Streambank Wheatgrass	*Elymus lanceolatus*	20
Arizona Fescue	*Festuca arizonica*	10
Bluebunch Wheatgrass	*Pseudoroegneria spicata*	5
Switchgrass	*Panicum virgatum*	10
Big Bluestem	*Andropogon gerardii*	10
Yellow Indiangrass	*Sorghastrum nutans*	10
Blue Grama	*Bouteloua gracilis*	5
Indian Ricegrass	*Oryzopsis hymenoides*	5
Little Bluestem	*Schizachyrium scoparium*	5
Sand Dropseed	*Sporobolus cryptandrus*	5
Sideoats Grama	*Bouteloua curtipendula*	5

Each of the revegetation sites were seeded with the Dry Mountain Native Bunchgrass Mix and this was supplemented at the Ecker Hill Middle School and Utah Olympic Park sites with the Foothills Native Bunchgrass Seed Mix

Dry Mountain Native Bunchgrass Mix		
Common Name	**Latin Name**	**% Mix**
Mountain Brome	*Bromus marginatus*	25
Slender Wheat	*Elymus trachycaulus*	10
Western Wheat Grass	*Pascopyrum smithii*	15
Rocky Mt Fescue	*Festuca saximontana*	10
Thickspike Wheatgrass	*Elymus lanceolatus*	15
Bluebunch Wheatgrass	*Pseudoroegneria spicata*	10
Sandberg Bluegrass	*Poa secunda*	10
Prairie Junegrass	*Koeleria macrantha*	5



in the Wasatch State Park trail system and campground. In total, 621 acres of additional land were inventoried for yellow toadflax, Myrtle spurge and leafy spurge. Within those acres, 39 miles of trail were inventoried, and 15 miles were treated.

Approximately 32 acres of leafy spurge, 1.7 acres of Myrtle spurge and 81 acres of yellow toadflax have been identified and mapped in the current program area since this program began in 2021. In addition to these three primary target species, 6 acres of hoary cress and 2 acres of Dalmatian toadflax have also been mapped. These two species have established following control of our primary target species at a few treatment sites. In order to ensure the sites develop a healthy and competitive native plant community, Dalmatian toadflax and hoary cress will continue to be treated at these sites. In previous years, this project included the Dutch Hollow area (97 acres of leafy spurge), however the Wasatch CWMA and Weed Department have a strong program in place for that area. The transects of Dutch Hollow were monitored again this final year and data will be provided to these partners.

Crews monitored known sites to direct treatment and assess weed population status over time. Transects within leafy spurge populations at Dutch Hollow (1 transect location) and Wasatch State Park (2 transect locations) were revisited in 2024. Results indicate that spurge may be declining at all three locations, however this decrease is minimal at the Wasatch Campground and Coyote Canyon. Reports from control crews in the Chalk Creek areas indicated that the leaf spurge seemed to have increased in the riparian areas in both number of populations and density. In the sites up the canyon and on drier slopes, the density and populations size of leafy spurge is declining. Yellow toadflax transects were established at two locations around Midway Reservoir and data suggests a trend towards reduced toadflax cover though also minimal. Plot data for these two transects show similar levels of change in toadflax cover. Monitoring was also used to update EDDMaps data points.

Acres inventoried are those visited for the first time in 2024 while acres monitored were mapped in previous years and were revisited in 2024 to assess treatment progress.

Area Name	Inventoried	Monitored
King Road	-	4
Utah Olympic Park	-	3
Ecker Hill Middle School	-	11
Toll Canyon	-	9
Jordanelle State Park	76	-
Bonanza Flat	175	23
Wasatch State Park	313	67
Deer Valley - Wasatch Side	30	8
Brighten Estates	27	-
Total	**621**	**98**

Transect percent cover for leafy spurge and yellow toadflax over time.

Species	Site	2022	2023	2024
Leafy Spurge	Wasatch Campground	28	24	20
	Dutch Hollow	60	73	47
	Coyote Canyon		16	20
Yellow Toadflax	Midway Reservoir 1		20	14
	Midway Reservoir 2		30	27

SUMMIT CWMA YELLOW TOADFLAX AND SPURGE CONTROL PROGRAM 5 YEAR PLAN

Year	Annual Goals/Metrics
2026	**Inventory** - TBD based on previous inventory results and partner needs
	Monitoring/Research - 8 research transects: Wasatch State Park, Midway Reservoir, Dutch Hollow, Coyote Canyon, Chalk Creek, State land south of Heber
	Control Treatments - Treat 50 acres (herbicide/mechanical)
	Biological Control - 4 biocontrol releases (Coyote Canyon and Elk Horn Canyon)
	Revegetation - Maintain: Ecker Hill, Utah Olympic Park, Toll Canyon and King Rd (2 ac)
	Partnerships - TBD based on previous inventory results and partner needs
2025	**Inventory** - Remaining trails at Wasatch State Park, Bonanza Flat, Park City Resort, Canyons Resort and Deer Valley (300 ac)
	Monitoring/Research - 6 research transects: Wasatch State Park, Midway Reservoir, Dutch Hollow, Coyote Canyon, Chalk Creek, State land south of Heber
	Control Treatments - Treat 80 acres (herbicide/mechanical)
	Biological Control - 4 biocontrol releases (Chalk Creek and Elk Horn Canyon)
	Revegetation - Maintain: Ecker Hill, Utah Olympic Park, Toll Canyon and King Rd (1 ac)
	Partnerships - TBD based on previous inventory results and partner needs
2024	**Inventory** - 621 ac, 39 mi of trails, several EDDMaps data points: Bonanza Flat, Wasatch State Park Trails from Bonanza Flat to the campground, 910 Ranch Parleys Summit Section of Western Boundary
	Monitoring/Research - 5 research transects: Wasatch State Park, Midway Reservoir, Dutch Hollow, Coyote Canyon, 98 ac monitored and EDDMaps data points updated
	Control Treatments - 121 ac herbicide and 5 ac mechanical removal
	Biological Control - 0 biocontrol releases
	Revegetation - 1.2 ac revegetated: Ecker Hill, Utah Olympic Park, Toll Canyon and King Rd
	Partnerships - Partner with Wasatch Trail Foundation started, expanding partnerships with Mountain Trails Foundation, South Summit Trails Association and Wasatch State Park
2023	**Inventory** - 591 ac: Dutch Hollow, Wasatch State Park, Midway Reservoir, Coyote Trail System, Chalk Creek/ Southfork Creek
	Monitoring/Research - 5 research transects
	Control Treatments - 26 acres treated (herbicide/mechanical)
	Biological Control - 0 biocontrol releases
	Revegetation - Maintain: Ecker Hill: Established 3 new: Utah Olympic Park, Toll Canyon and King Rd (2 ac)
	Partnerships - Partnered with the Wasatch CWMA
2022	**Inventory** - Dutch Hollow and Wasatch State Park (229 ac)
	Control Treatments - 31 acres treated (herbicide/ mechanical)
	Biological Control - 5 biocontrol releases
	Revegetation - Ecker Hill
2021	**Inventory** - Began inventory efforts in Wasatch State Park Campground and trails and at Dutch Hollow (334 ac)
	Control Treatments - 23 acres treated (herbicide/mechanical)
	Partnerships - Partnered with Wasatch County Weed Department

Weed Species	Wasatch State Park to Campground	Bonanza Flat	Brighton Estates	Wasatch County - DV to Browns	Ecker Hill	Park City - Snyderville Basin	Chalk Creek
Dalmatian Toadflax	1.795	-	-	0.242	-	-	0.031
Hoary Cress	-	-	-	-	6.037	-	-
Leafy Spurge	17.567	-		0.059	2.083	-	12.631
Myrtle Spurge	0.008	-	-	0.073	-	-	-
Yellow Toadflax	19.612	42.374	3.694	0.180	-	15.195	-
Total Known	**39.9**	**54.8**	**4.0**	**64.3**	**8.1**	**15.2**	**13.0**

Known acres include acres of the above weed species that have been mapped in the different management areas through 2024. Four additional areas being monitored and treated include King Road Myrtle spurge (0.16 ac), Utah Olympic Park Myrtle spurge (0.11 ac), Toll Canyon Myrtle Spurge (1.03 ac) and 910 Ranch Myrtle spurge (0.3 ac). While Dalmatian toadflax and Hoary Cress are not the primary species of this project, they are important concerns we have started tracking in case they become a priority in the future.

Dalmatian Toadflax (*Linaria dalm*atica), a Class 2 noxious weed, left, and Hoary Cress/Whitetop (*Lepidium draba*), a Class 3 noxious weed, right, have replaced Myrtle and leafy Spurge in some treatment areas. To prevent these species from inhibiting native plant reestablishment, these weeds are controlled at these sites.

Private ranch properties along South Fork Creek and Chalk Creek with leafy spurge were treated again this season, however funding did not allow us to get to all known populations. The Ecker Hill Middle School leafy spurge population, along with the whitetop (*Lepidium draba*) that replaced it, was treated and portions of the site were revegetated.

The single Myrtle spurge population in the Wasatch State Park Campground was treated with herbicide. Meanwhile, spurge populations in the three open spaces, Toll Canyon, Utah Olympic Park and Empire Pass/ King Road areas, were hand-weeded and then broadcast seeded in the fall.

Just under 15 miles of trail and over 90 acres of yellow toadflax were treated in the areas from Bonanza Flat

Weed Species	Wasatch State Park to Campground	Bonanza Flat	Brighton Estates	King Rd	Ecker Hill	Utah Olympic Park	Toll Canyon	Park City - Snyderville Basin	Chalk Creek
Hand Pulling									
Dalmatian Toadflax	0.002	0.64	-	-	-	-	-	-	-
Myrtle Spurge	-	-	-	0.16	-	0.10835	1.027	1.35	-
Yellow Toadflax	-	0.64	-	-	-	-	-	0.58	-
Herbicide									
Hoary Cress	-	-	-	-	0.96	-	-	-	-
Leafy Spurge	2.77	-	-	-	1.35	-	-	-	24.97
Yellow Toadflax	16.25	60.62	5.40	-	-	-	-	8.81	-
Total Acres Treated	**19**	**62**	**5**	**0.2**	**2**	**0.1**	**1**	**11**	**25**

Total acres treated using hand weeding and herbicide join the major project areas.

Ecker Hill Leafy Spurge Project: The middle photo shows a portion of the site after several years of biocontrol and herbicide but before revegetation. The photo on the bottom shows dense establishment of native bunchgrasses by 2024. Other portions of this site have not established to this level of native plant cover and are therefore receiving additional revegetation efforts.

down through Wasatch State Park and in Chalk Creek.

No biological control agents were released in 2024. Leafy spurge beetles were not available, and the timing of yellow toadflax beetle availability was once again out of sync with plant growth at these higher elevations. Lower elevation yellow toadflax populations are not dense or large enough for biological controls to be a good fit at this time.

A total of 1.12 acres (0.1 ac received soil amendment) were revegetated in 2024. Revegetation efforts were focused on the three Myrtle spurge sites (Toll Canyon, UOP and King Rd) and the leafy spurge population at the Ecker Hill Middle School and Pinebrook HOA boundary. All four sites remain low in cover of the target noxious weeds.

At Ecker Hill, Hoary cress had rapidly moved in as leafy spurge was reduce a couple years ago. In 2024, much of the hoary cress had been reduced to small patches. The bare ground left behind was seeded with native grass mixes and patches near the edge of areas already

2024 Yellow Toadflax and Spurge Control Program Partners

Deer Valley - Laura Sexton, Paul Hedman
Ecology Bridge - Sara Jo Dickens
Mountain Trails Foundation - Rick Fournier, Lora Anthony
Park City School District - Todd Hansen
Pinebrook HOA - Stephen Herrera
Snyderville Basin Special Recreation District - Phares Gines, Maddie Nelson
Summit County - Dave Bingham, Dan Pena
Summit County Weed Board - Sam Blonquist, Robert Siddoway
USU Extension - Elizabeth Cohen
Utah Dept of Agriculture and Food
Wasatch County & CWMA - Quinten Lewis
Wasatch State Park - Jonathan Hunt, Tom Halladay

Myrtle spurge was found at a single location on the 910 Ranch in Snyderville Basin. Since this population is adjacent a road, it will be treated with herbicide going forward.

showing reestablishment of natives were treated with soil amendment prior to seeding to increase seed germination and seedling establishment. Working from the edge of an island of successful revegetation allows us to gain more ground with manageable annual efforts. It also allows for rapid shift in treatment if noxious weeds germinate in revegetated areas. Overall, the leafy spurge at this site has been reduced to 22% of its original cover and hoary cress to 15% of its cover during its higher level of coverage.

CONCLUSION

While new populations of Myrtle and leafy spurge were found in 2024, these populations are relatively small and easily treated. Myrtle spurge populations in this program continue to decline in cover and revegetation efforts are progressing in at least two of the main three revegetation sites. The Utah Olympic Park site, however, has had minimal growth of native grasses likely due to the hot, dry conditions and rocky soils of the site. That said, weeds are also not establishing so future management may just include monitoring to ensure no reinvasion occurs and to continue controlling the few spurge plants that continue to germinate each year.

Yellow toadflax mapping identified 55 new acres, much of which is along trails and meadows associated with the WOW trail in Wasatch State Park. The degree to which yellow toadflax is spreading along trails is concerning, particularly when considering the number of new trails being proposed for the Bonanza Flat-Deer Valley East and Wasatch State Park areas. To prevent further spread via recreation, aggressive control of known populations along trails, at trailheads and along roads will be necessary. Additionally, policies to require weed management plans pre, during and for three years after installation of new trails need to be implemented. If trails are installed and the only follow up maintenance is rebuilding of trail features and removal of down trees and brush overgrowth as they are now, containment and control of yellow toadflax will become impossible.

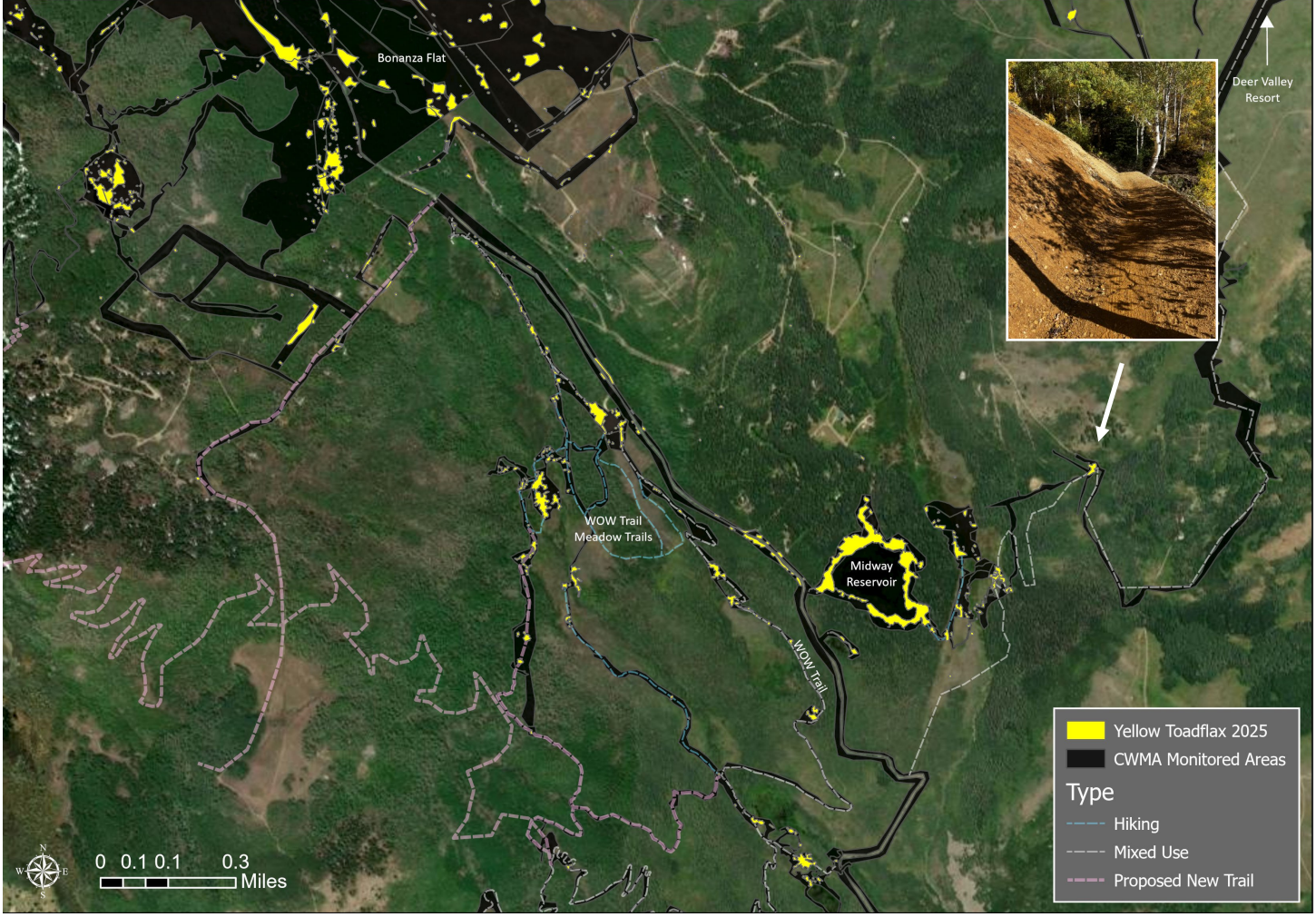
ADAPTIVE MANAGEMENT PLANNING

It is increasingly clear that our three target species each

Trails and trailheads were one of the highest priorities for both inventory and treatment in 2024. A total off 24 rails were inventoried either in their entirety or sections of the trails near known yellow toadflax populations. In total, 39 miles of trail were inventoried and 15 were treated.

Area	Trails Inventoried	Miles Inventoried	Miles Monitored
Bonanza Flat	Brighten to WOW Social Trail	0.6	0.6
	Bonanza Loop	5	-
	IO (Middle)	0.7	-
Wasatch State Park	WOW Trail	10.2	10.2
	WOW Trailhead Meadows Walked Trails	3.2	3.2
	WOW Access	0.1	-
	Nature Loop Trail	1	-
	Midway Reservoir Trail	0.5	0.5
Empire Pass	TDS Ontario Bypass	0.5	-
	Ontario Bypass	0.5	-
	West Sec Ontario Ridge Road	0.3	-

Area	Trails Inventoried	Miles Inventoried	Miles Monitored
Deer Valley Traill	Original DV to WOW Exterra Alignment	3	-
	Ontario Loop	1.4	-
	Flagstaff Loop	1.7	-
	Ontario Canyon	0.7	-
	Trump	0.5	-
	Super G	0.4	-
	Bermy	0.8	-
	Deet Camp	0.8	-
	Holy Roller Sec 2 & 3	1.8	-
	Nail Driver	3	-
	Tidal wave Sec 3	2	-
	Twist and Shout Sec 4	0.3	-
	Sunset Sec 1	0.2	-



Yellow toadflax was initially present in the Bonanza Flat area and along the road, however in the past 20 years, it has moved along trails and roads into Wasatch State Park. The State Park now has 20 acres of yellow toadflax and this acreage grows as more trails are mapped and toadflax identified. The photo illustrates where a new trail was cut through an existing yellow toadflax population.

fit in different control categories. Myrtle spurge remains at an early stage EDRR status. The number and size of populations are small, particularly on public and semi-public open space lands. For this reason, these populations remain high priority for treatment and monitoring with the hope of eradication.

Leafy spurge remains very limited in our project area, however there are areas of extensive invasion such as along Chalk Creek and Wasatch State Park. Treatment of all the known populations is expensive making annual treatment at each population unlikely. Therefore a prioritization criterion is essential to determine which populations to treat and which have to wait for other funding sources or actions by local landowners. Because the known populations are on both private and publicly owned lands and the ISM funds are public funds, public lands will be prioritized over private property. Private lands will be prioritized based on the likelihood of eradication and the potential for population spread.

Populations along creeks, trails and roads have the greatest likelihood for spread, therefore will be highest priority. This means the populations in Ecker Hill Middle School and along Chalk and Northfork Creeks will be the highest priority for 2025 leafy spurge control.

Yellow toadflax distribution is extensive and is expanding as more natural lands are disturbed for recreation amenities such as expanded trailheads, rerouted trails and new trails. Prioritization of this species is more difficult than the other two species. Within Snyderville Basin and Park City, populations are small and thus perfect for EDRR. However, there are several and many of them are remote trailside locations making treatment costly due to access. Additionally, several are on trails that cross multiple ownership boundaries. It will be important to work with these landowners to pool resources in order to cover as much ground as possible.

With the extensive inventory of new trail alignments between Deer Valley Resort and the Midway Reservoir

and the new and long-established trails of Bonanza Flat and Wasatch State Park, it has become clear that yellow toadflax is being spread through recreation both through trail building and recreational use. Inventory of all additional trails and adjacent meadows will be necessary to determine the full extent of yellow toadflax and to develop a strategic approach to its control.

Additionally, the Summit CWMA is working with Wasatch State Park to develop a policy that would require all new trails to have a three-year weed management plan that includes pre-building inventory and mapping of weeds along with three years of weed control. The goal of this policy would be to:

- Minimize miles of trails crossing through already known weed populations
- Address weeds brought in during trail building
- Reduce long-term noxious weed issues and management costs to the Park
- Increasing awareness in trails foundations regarding their potential to spread weeds with trail development and their responsibility to minimize these impacts

FINANCIAL UPDATE

The Summit CWMA Yellow Toadflax and Spurge Program was awarded $38,407.00 for the 2024-25 state fiscal year (FY2025). In addition, $49,459.46 carried over into spring 2023 from the 2023-24 state fiscal year grant funds making a total of $46,187.06 available for the 2024 season. Of that budget, $42,619.10 was spent in 2024 leaving $3,567.96 to roll over into spring of 2025 to be spent before June 30, 2025. In addition to the ISM Grant funding, this project was funded by a BIL grant totaling $29,000, of which $ 4071.20 has been spent. Partner in-kind matches total $20,698.

ISM Expenses January - December 2024.

Line Item	Description	Jan - June 2024	July - Dec 2024
Inventory and Mapping - Contractor	Contractors to monitor current populations, past restorations and areas adjacent the known populations in order to identify population distribution and boundaries in the project area. Additionally collect data in ArcGIS Field Map and manually update EEDMaps points related to this program.	$797.85	$8,471.68
Monitoring	Assessment of population status to guide treatment and track change over time	-	$3,154.68
Herbicide Treatment	Contractors to treat with Milestone and 2,4D	$2037.21	$19,658.69
Manual Removal	Pulling garlic mustard in Wasatch State Park found while mapping spurge	-	$203.45
Herbicide for Partner Use	Purchase of Telar for Deer Valley Resort crews to treat yellow toadflax	$784.00	-
Supplies - Restoration/Reveg	Compost and Biochar, Native seed	-	$1,378.64
Arc GIS Data/Mapping	Updating and maintaining GIS data	$393.70	-
Administration (Fiscal Agent)	Management of grant accounts and payments	$2412 .00	$1,800.00
Administration (Project Management)	Management of project implementation, data management, Reporting	$1454.3	$171.90
Total		**$7,879.06**	**$34,839.04**

Partner match in 2024

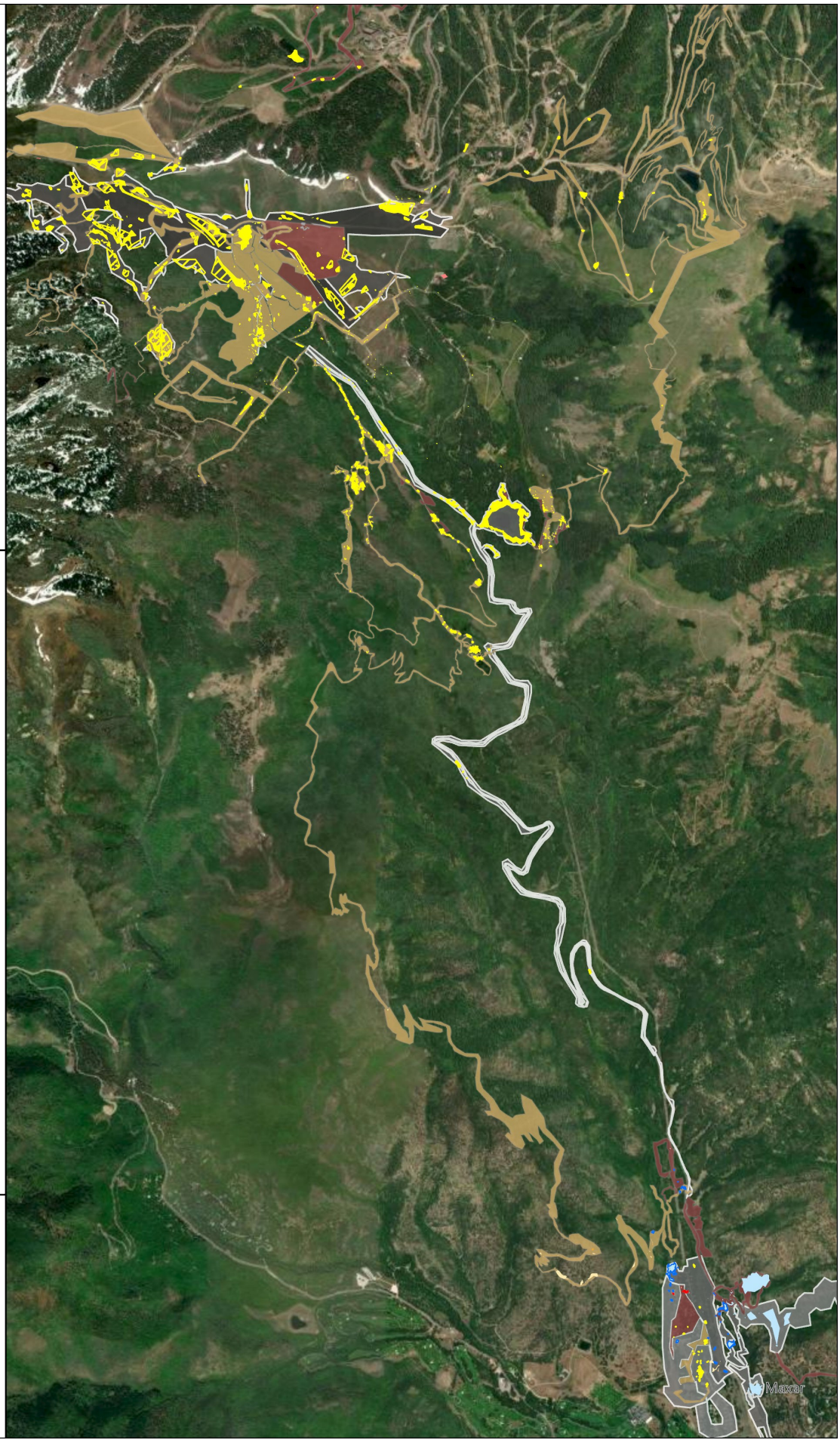
Partner	Summit County	PCMC	PCMC	Deer Valley	Basin Recreation
Line Item	Herbicide Control	Herbicide Control	Inventory / Mapping	Herbicide Control	Manual Control
Match Value	$1,600	$4,600	$12,734	$1,500	$264

2023 YELLOW TOADFLAX AND SPURGE PROGRAM INVENTORY AND TREATMENT MAPS

SUMMIT CWMA

2024 Mapped and Treated Noxious Weeds Bonanza to Wasatch State Park Campground

Yellow toadflax has spread from original locations of central Bonanza Flat and the Midway Reservoir along trails, roads and into grassy meadows south towards Wasatch State Park. Leafy spurge remains limited to the Wasatch State Park Campground and Dutch Hollow areas trails system.



Treated Noxious Weeds
- Dalmatian Toadflax
- Garlic Mustard
- Hoary Cress
- Leafy Spurge
- Myrtle Spurge
- Yellow Toadflax
- <all other values>

Mapped Noxious Weeds
- Dalmation Toadflax
- Garlic mustard
- Hoary Cress
- Leafy Spurge
- Myrtle Spurge
- Yellow Toadflax

Year
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024

N W E S

0 0.2 0.4 0.8 Miles

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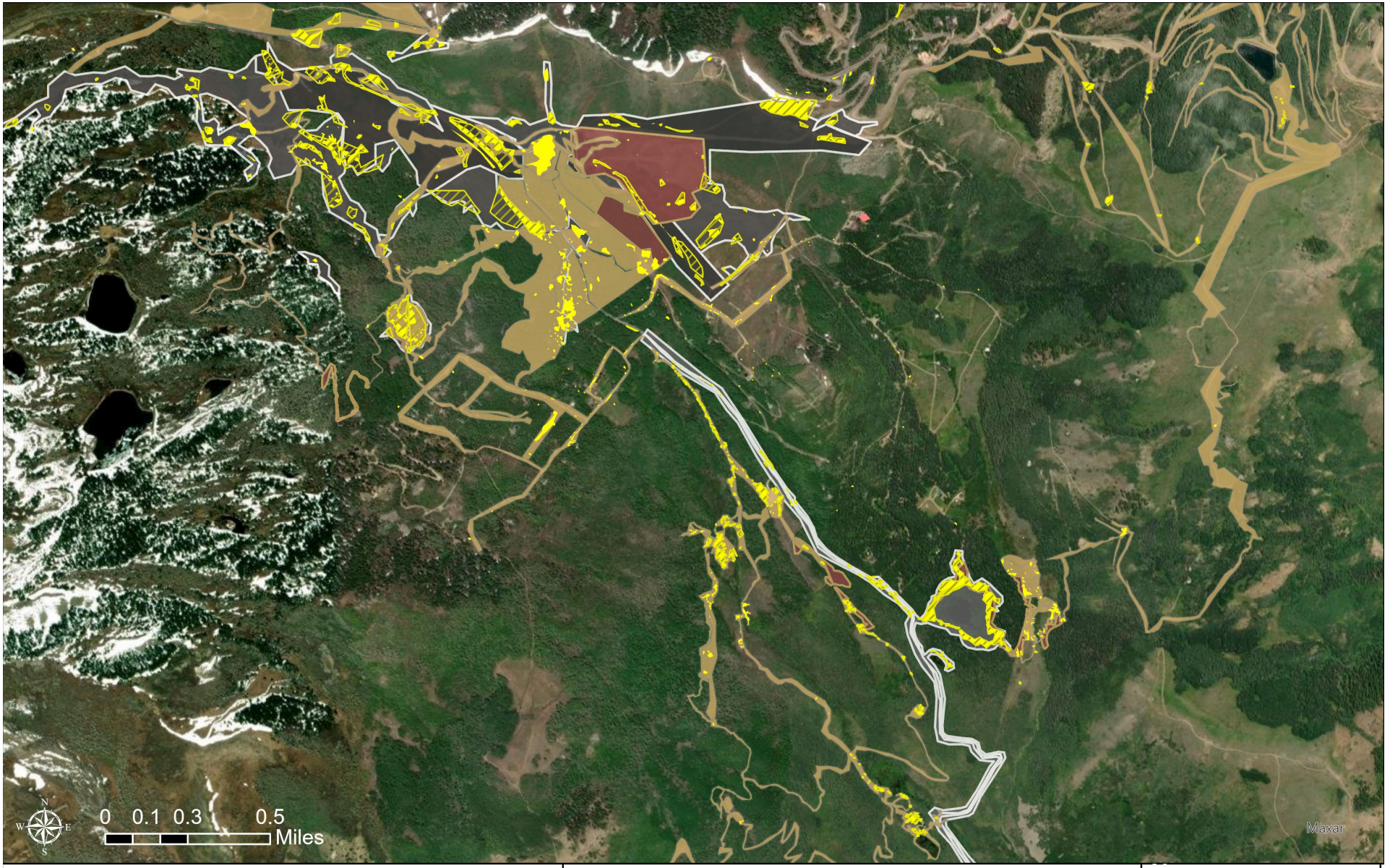

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2024 Mapped and Treated Noxious Weeds
Bonanza Flat, WOW Trail and Midway Reservoir Area

Yellow Toadflax is expanding in the Bonanza Flat, WOW Trail and Midway Reservoir areas, particularly along trails and areas in which the trails cross grassy meadows and wetlands.

Treated Noxious Weeds	Mapped Noxious Weeds	Year
Dalmatian Toadflax	Dalmation Toadflax	2018
Garlic Mustard	Garlic mustard	2019
Hoary Cress	Hoary Cress	2020
Leafy Spurge	Leafy Spurge	2021
Myrtle Spurge	Myrtle Spurge	2022
Yellow Toadflax	Yellow Toadflax	2023
		2024

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SUMMIT CWMA

2024 Mapped and Treated Noxious Wasatch State Park Campground

Leafy spurge remains limited to the Wasatch State Park Campground and Dutch Hollow areas trails system. Yellow Toadflax and Myrtle Spurge in the campground has remained fairly stable, however garlic mustard has increased slightly in the Oak Hollow campground area and is high priority for control in 2025.

Created January 10, 2025
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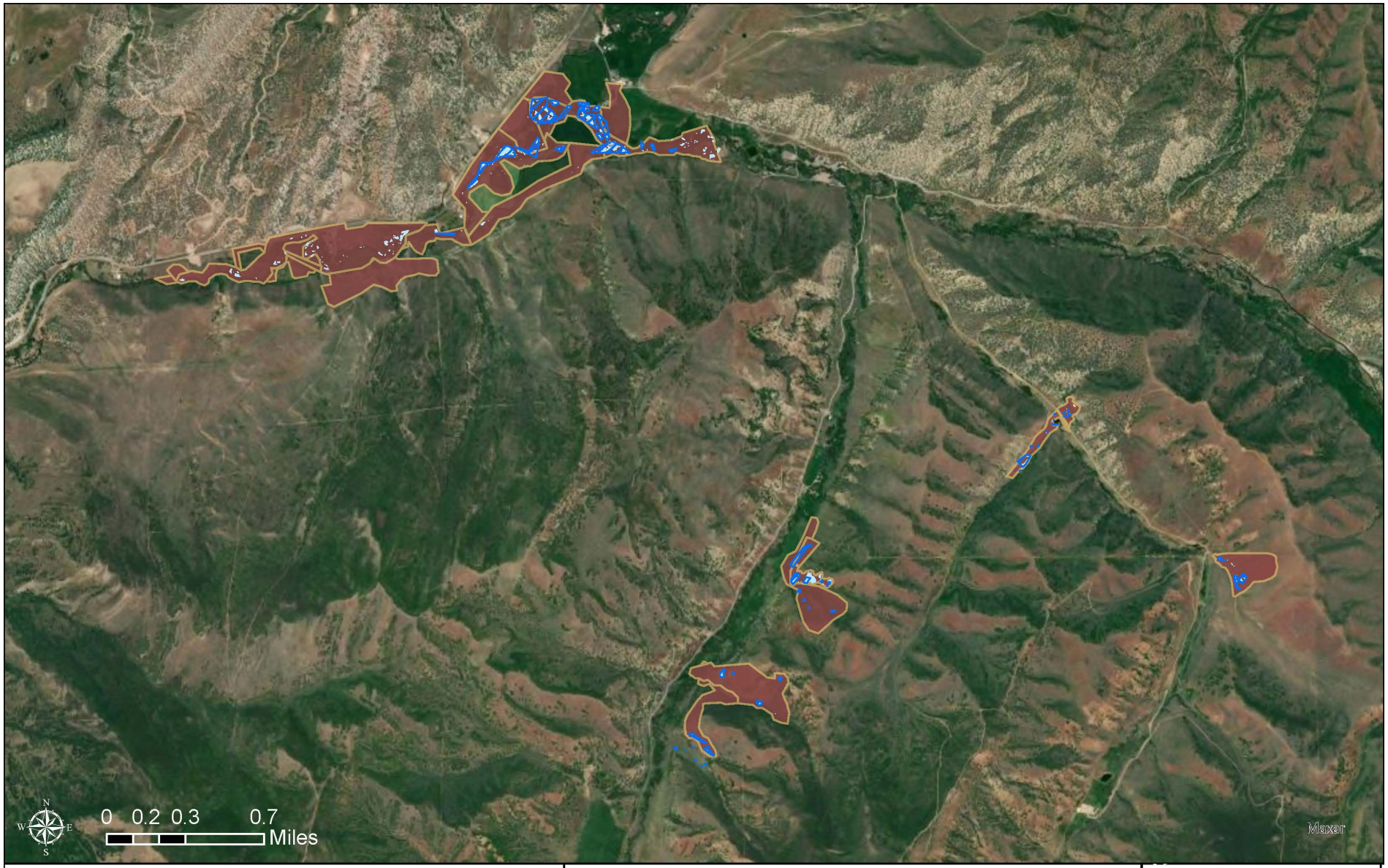

SUMMIT CWMA

2024 Mapped and Treated Noxious Weeds
Chalk Creek Area

The majority of Leafy Spurge in the Chalk Creek Project area was treated in 2024, however, funding didn't allow for treatment of all populations. Populations were not reduced in size since 2023, but density of plants have been reduced in many areas.

Treated Noxious Weeds	Mapped Noxious Weeds	Year
Dalmatian Toadflax	Dalmation Toadflax	2018
Garlic Mustard	Garlic mustard	2019
Hoary Cress	Hoary Cress	2020
Leafy Spurge	Leafy Spurge	2021
Myrtle Spurge	Myrtle Spurge	2022
Yellow Toadflax	Yellow Toadflax	2023
		2024

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