Integrated Weed Management Plan- Ben Lomand Project

Prepared by:
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Prepared for:
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3195 County Line Road
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Project Area:

The Ben Lomand project is located in El Paso County, Colorado adjacent to Palmer Lake. County Line Road borders the northern site boundary. Current land uses on the site include open space and rangeland. Map 1 shows the project area boundaries. The total project area is approximately 340 acres+-.

Site Location: S4 NW1/4, NE1/4, SW1/4, S3 NW1/4; T6N, R68W

Elevation: 7,243 feet

USGS Quad map: Palmer Lake

Parcel Numbers:
710420012, 710400002, 710400001,710300028
Owner: United Congressional Church

Survey/Inventory:

The Weed Control Plan and survey was completed by Eric Berg and Craig Severn of Wildland Consultants, Inc. (WCI) in September 2025. Mr. Berg and Mr. Severn have decades of ecological consulting experience along the Colorado Front Range. The Integrated Weed Control Plan was written to meet the guidelines of the El Paso County Noxious Weed Management Plan (El Paso County 2022).

Existing roads were driven and areas of the property surveyed on foot. Location of weed occurrences were recorded with a hand held GPS unit. The weed inventory was completed to located weed species listed on the Colorado Noxious Weed List (Colorado Department of Agriculture 2025).

No weeds from Colorado's Noxious Weed List A were observed. Noxious weeds observed that are listed on the Colorado Noxious Weed List B include: Canada Thistle (*Cirsium arvense*), Diffuse

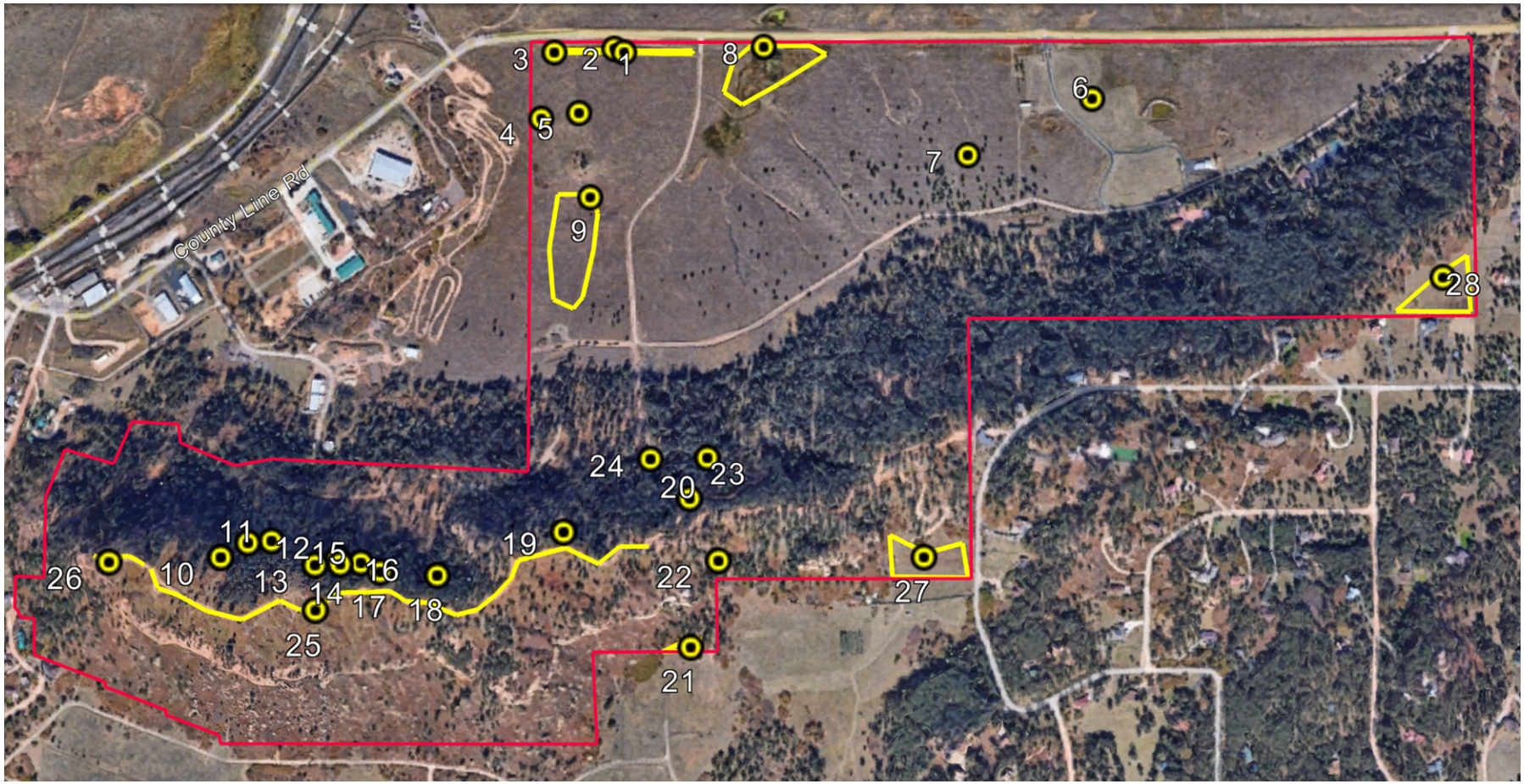
Knapweed (*Centaurea difusa*), Hounds Tongue (*Cynoglossum officinale*), Musk Thistle (*Carduus nutans*), and Yellow Toadflax (*Linaria vulgaris*). Weeds observed that are on Colorado Noxious Weed List C included Common Mullein (*Verbascum thapsus*) and Downy Brome (*Bromus Tectorum*). Table 1 summarizes weed infestation locations (for List B species only), Map 1 shows weed infestation locations listed in Table 1. No weed species on the Colorado Watch List were located on the site.

Table 1. Weed Infestation Locations and Descriptions

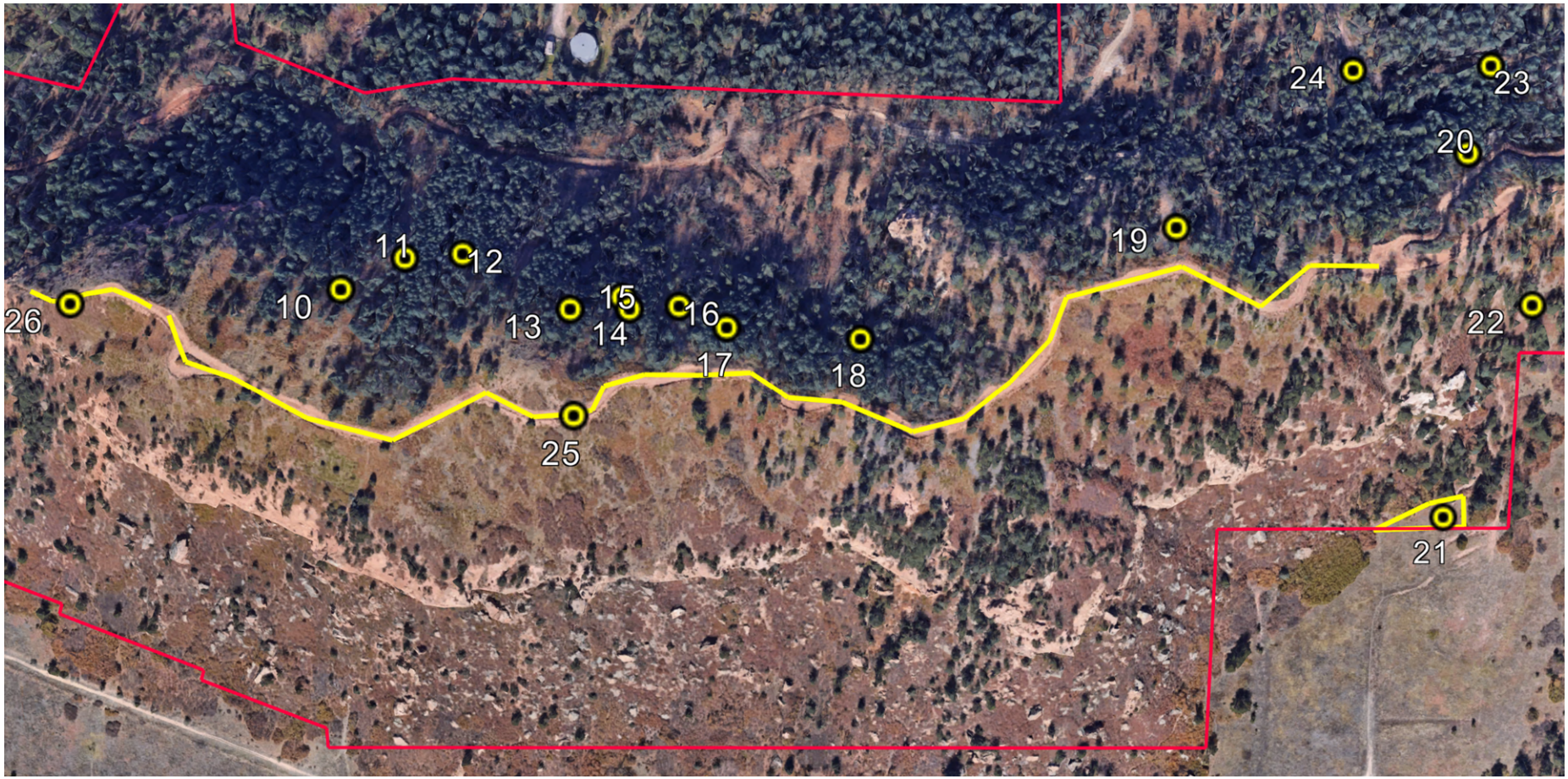
				WEED SPECIES OBSERVED*				
MAP No.	Northing	Easting	COMMENTS	Canada Thistle, List B	Diffuse Knapweed, List B	Hounds-tongue, List B	Musk Thistle, List B	Yellow Toadflax, List B
1	4331172	508828	Small infestation	X				
2	4331167	508844	Borrow area		X			
3	4331167	508730	Small infestation	X				
4	4331059	508709	Sporadic infestation in area		X			
5	4331066	508772	Sporadic infestation in area		X			
6	4331090	509607	Sporadic infestation in area		X			
7	4330997	509404	Small infestation			X		
8	4331178	509072	In area of wetland	X	X	X	X	X
9	4330930	508790	Three concentrated areas	X				
10	4330351	508229	In Past area of disturbance	X				X
11	4330373	508266	In Past area of disturbance			X		X
12	4330376	508303	In Past area of disturbance	X		X		
13	4330339	508375	In Past area of disturbance	X		X		X
14	4330348	508407	In Past area of disturbance					X
15	4330340	508412	In Past area of disturbance	X		X		
16	4330342	508444	In Past area of disturbance					X
17	4330328	508475	In Past area of disturbance			X		
18	4330322	508562	In Past area of disturbance					X

19	4330391	508764	Along Informal trail		X			
20	4330443	508959	Sporadic infestation in area		X	X		
21	4330262	509009	Sporadic infestation in area		X			
22	4330205	508958	Sporadic infestation in area		X			
23	4330507	508985	Sporadic infestation in area	X		X		
24	4330505	508894	Sporadic infestation in area					X
25	4330270	508380	Road and road edge		X			
26	4330343	508050	Informal trail		X			
27	4330350	509330	Sporadic infestation in area		X			
28	4330795	510158	Sporadic infestation in area		X			

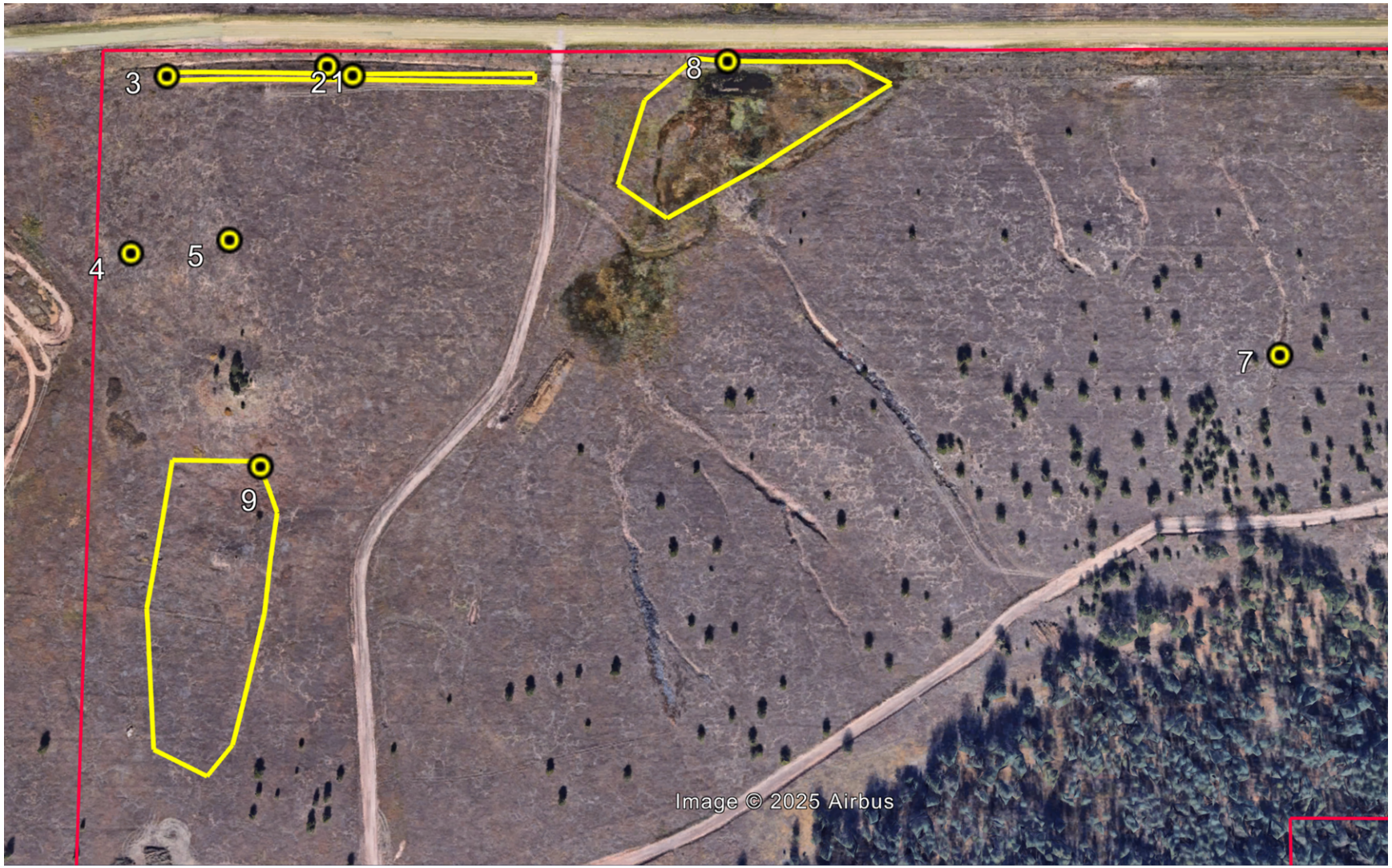
Map 1(Sheet 1 of 4). Ben Lomand, Weed Locations (overview map).



Map 1 (Sheet 2 of 4). Ben Lomand Weed Locations (Detail)



Map 1 (Sheet 3 of 4). Ben Lomand Weed Locations (Detail)



Map 1 (Sheet 4 of 4). Ben Lomand Weed Locations (Detail)

Management Goals:

Overall: Promote native/naturalized plant communities. Use native seed mixes in areas of new disturbance (detention areas, road shoulders). Restore prior disturbed areas (existing road shoulders, excavated areas, burn piles) by seeding with appropriate native seed mixes.

Canada Thistle (*Cirsium arvense*): Contain and suppress existing infestation. Control spread and reduce density of infestations.

Diffuse Knapweed (*Centaurea difusa*): Contain and suppress existing infestation. Control spread and reduce density of infestations.

Hounds Tongue (*Cynoglossum officinale*): Contain and suppress existing infestation. Control spread and reduce density of infestations.

Musk Thistle (*Carduus nutans*): Contain and suppress existing infestation. Control spread and reduce density of infestations.

Yellow Toadflax (*Linaria vulgaris*): Contain and suppress existing infestation. Control spread and reduce density of infestations.

Control Methods:

Weed control methods will include: preventative, biological, mechanical and chemical. Spot spraying of weed infestation will be the only chemical control method used. Chemical control over the entire site could result in the loss of native forbs and shrubs. The proposed seed mixes include a variety of native grasses and forbs. Many of these species are hard to identify and could be killed by careless weed control (especially herbicide spraying). Any chemical control will be completed by a Licensed Commercial Pesticide Applicator (LCPA).

Canada Thistle (*Cirsium arvense*)

Biological: Grazing by cattle, goats, and sheep when plants are young. Insects available but have not shown effective control. Rust fungus (Puccinia punctiformis) collection and distribution methods are being refined.

Mechanical: Neither hand-pulling or tilling is an option. Mowing can be effective if done every 10 to 21 days during the growing season. Especially effective when combined with a fall herbicide treatment.

Chemical: Aminopyralid: Apply in spring until flowering and/or to fall re-growth. Especially effective in fall after the first light frost. Clopyralid + triclopyr: Apply in spring until flowering or fall regrowth. Aminoclopyrachlor + chlorsulfuron: Effective from rosette to bud stage, also to fall regrowth.

Preferred Method: The preferred method of control is a combination of mechanical (mowing during the growing season to prevent flowering) and chemical (spring prior to flowering, fall to prevent regrowth).

Diffuse Knapweed (*Centaurea difusa*)

Biological: Insects listed below provide good control when used together, but may take 3 to 5 years to establish and achieve optimum results. Seedhead weevil - Larinus minutus Root weevil - Cyphocleonus achates

Mechanical: Sever the taproot below ground prior to flowering. Mowing is effective at or just before full-bloom; plant parts must be disposed of properly as seed can still develop on cut plants.

Chemical: Use as a pre-emergent or apply from seedling to mid-rosette stage. Aminopyralid: Rosette to early bolt stage (spring) and/or in the fall to the rosettes. Clopyralid: 30 Apply in spring or fall to rosettes before flowering stalk lengthens.

Preferred Method: The preferred method is a combination of mechanical and chemical. Mechanical control can be too labor intensive for many infestations.

Hounds Tongue (*Cynoglossum officinale*)

Biological: No biological control has been approved for use in Colorado.

Mechanical: Cut or pull plants, remove entire root crown when plants are in rosette stage.

Chemical: Metsulfuron + 2,4-D: Rosette to early flower growth stages. Chlorsulfuron + 2,4-D: Rosette to early flower growth stages. Metsulfuron + chlorsulfuron: Rosette to early flower growth stages.

Preferred Method: The preferred method is a combination of mechanical and chemical. Mechanical control works well for isolated infestations.

Musk Thistle (*Carduus nutans*)

Control methods:

Biological: The crown weevil, Trichosirocalus horridus, is available for control.

Mechanical: Sever the root below the soil surface prior to plant flowering in the ro sette stage. Mowing is effective at full bloom, but flowering plant parts must be disposed of properly because seeds will develop on cut plants and germinate.

Chemical: Recommendations only! Always read, understand and follow the label. The label is the law! Aminopyralid: Apply in spring during rosette to early bolting stages, or to rosettes in fall. Chlorsulfuron: Apply in spring from rosette through very early flowering stages. Clopyralid: Apply to rosette through flower bud stage or to fall rosettes.

Preferred Method: The preferred method is a combination of mechanical and chemical. Mechanical control works well for isolated infestations.

Yellow Toadflax (*Linaria vulgaris*)

Biological: The following insects are available for control: Noctuid moth - Calophasia lunula Root boring moth - Eteobalea intermediella Stem-boring weevil - Mecinus janthinus

Mechanical: Hand-pulling and tillage are not recommended due to its extensive creeping root system. A single new plant might be an exception.

Chemical: Aminocyclopyrachlor + Chlorsulfuron: Apply at flowering through fall post-flower into senescence. Picloram + Chlorsulfuron: 54 Fall application, late August through September has best results.

Preferred Method: The preferred method is chemical control.

Timeline of Activities:

Canada Thistle (*Cirsium arvense*)- Mowing during growing season. Spraying during spring and early summer prior to flowering. Fall spraying on regrowth.

Diffuse Knapweed (*Centaurea difusa*)- Spring to fall spraying depending on herbicide used.

Hounds Tongue (*Cynoglossum officinale*)-Spring to early summer spraying when plant is in early rosette to early flower growth stage. Mechanical control spring-summer.

Musk Thistle (*Carduus nutans*)- Spraying from early spring rosette to early summer flower growth stages. Fall spraying. Mechanical control spring-fall.

Yellow Toadflax (*Linaria vulgaris*)- Late summer to early fall spraying at flowering or post flowering.

Monitoring:

Weed monitoring will be completed by a qualified person familiar with plant and weed identification. Monitoring and weed control will be completed 2 times per growing season:

- Annual Late Spring Monitoring and Control (late May-Early June)
- Annual Late Summer Monitoring and Control (late August-Early September)

An annual summary report/memo summarizing weed control efforts and monitoring will be completed at the end of each growing season (mid fall). The annual report will summarize weed monitoring (weed infestations and percent cover) and weed control (a brief summary of methods used).

Literature Cited:

Colorado Department of Agriculture. 2025. Noxious Weed List.

El Paso County. 2022. Noxious Weed Control Management Plan.

El Paso County. 2024. Noxious Weeds and Control Methods.