Native Areas: 5-year Management Plan **2026 Update**

Powhaton Metropolitan District

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Resilient Roots Ecology

Summary

The Powhaton Metropolitan District (PMD) is a community in Aurora, CO that incorporates significant areas of native open space into the community design. Native areas are in various stages of establishment and will require site-specific management of invasive species and irrigation. This document provides an update to the 5-year Management Plan created in 2024.

Current Site Conditions

All native areas indicated on the native areas map (**page 6**) were visually inspected on 3/23/2026.

Native grass establishment continues to vary across the community, but generally, establishment is improving. With native grasses like buffalograss (*Bouteloua dactyloides*) and blue grama (*Bouteloua gracilis*), establishment can be difficult to judge because these species tend to prioritize root growth over leaf growth for the first several years. This gives them drought resistance very quickly and less irrigation will be needed. Over time, these grasses will put on more above-ground growth and fill in these native areas. There are, however, a few early establishment areas that could benefit from irrigation this year. Irrigation should increase grass growth, improving appearance and reducing the chance of soil erosion.

Weeds are also slowly decreasing across the community. Deep-rooted perennial weeds like Canada thistle (*Cirsium arvense*) and curly dock (*Rumex crispus*) generally take many years of consistent management to control, so weed management will continue to be a priority. Many annual weeds will decrease over time as native grasses continue to fill in but should be monitored in case additional weed management is needed to support native grass establishment.

Several instances of human-caused disturbance were observed in the community, including pet waste, trampled native areas, and yard waste dumping. Educating the community on the impacts of these types of disturbance can be helpful in reducing their frequency. Examples of human-caused disturbance and the harm they cause are below.

Human Action	Negative Effects
Using native common areas to access yards with heavy equipment like skid-steers	- Compacts soil, impairing plant growth and water infiltration - Destroys existing vegetation, resetting the establishment timeline and encouraging weeds
Dumping yard waste and food scraps	- Grass clippings degrade slowly and can smother existing vegetation - Adds excessive nutrients to the soil, which encourages weeds instead of native species - Spreads weeds - Encourages wildlife to become too comfortable near humans
Not picking up pet waste	- Spreads disease to humans and other animals - Disrupts soil health by adding excessive nutrients
Mowing in common areas	- Most native grasses do not tolerate frequent mowing and will die back - Home mower height is much too short, which is especially stressful for grasses

Weed Management Recommendations

Weed management recommendations remain the same for 2026 to build on the progress of previous years.

Weed species observed on 3/23/26:

Common Name	Scientific Name	CO Noxious Weed List	Type	Lifespan	Herbicide Note
Canada thistle	*Cirsium arvense*	B	forb	Perennial	Milestone
Diffuse knapweed	*Centaurea diffusa*	B	forb	Biennial	Milestone
Musk thistle	*Carduus nutans*	B	forb	Biennial	Milestone
Common mullein	*Verbascum thapsus*	C	forb	Biennial	Milestone
Field bindweed	*Convolvulus arvensis*	C	forb	Perennial	
Perennial sowthistle	*Sonchus arvensis*	C	forb	Perennial	Milestone
Redstem filaree	*Erodium cicutarium*	C	forb	Annual/Biennial	
Downy brome, cheatgrass	*Bromus tectorum*	C	grass	Annual	winter treatment
Blue mustard	*Chorispora tenella*	N/A	forb	Annual	mustards
Curly dock	*Rumex crispus*	N/A	forb	Perennial	Milestone
Flixweed	*Descurainia sophia*	N/A	forb	Annual	mustards
Kochia	*Bassia scoparia*	N/A	forb	Annual	2,4-d resistant
Tumblemustard	*Sisymbrium altissimum*	N/A	forb	Annual	mustards
Reed canarygrass	*Phalaris arundinacea*	N/A	grass	Perennial	near/in water

Biennial/Perennial species: Perennial weed species like Canada thistle and curly dock are most effectively controlled with herbicide treatments. Biennial weed species like diffuse knapweed can be effectively controlled with herbicide treatment but can also be mechanically controlled once they are flowering by pulling or cutting the root below the soil surface.

- Two spring herbicide applications (between April and early July)
    - Recommend chemical Milestone (aminopyralid) with a non-ionic surfactant for all thistles (Canada, musk), curly dock, diffuse knapweed, and common mullein.
    - Other broadleaf-specific herbicides can be used (according to the label) for other broadleaf weeds (e.g. prickly lettuce, bindweed).
    - Targeted spot-spraying only.
- One fall herbicide application (roughly October)
    - Monitor for new emergence to determine application timing. Fall growth will be low-growing rosettes for the above species.
    - Targeted spot-spraying only.
- Two mechanical removals of any plants that avoided the herbicide treatment (late July through
    - September)
        - Prioritize the removal of flowers/seeds.
        - Can use string trimmers or spot-mowing.

Timeline: These species are mostly seen as scattered individuals and in small patches. These should be sufficiently controlled with one more season of well-timed and effective herbicide treatment. Healthy native plant communities can often keep the occasional thistle, etc. from spreading and taking over an area. But because many of the native areas are still early in their establishment process, the native grasses are not yet developed enough to compete well with the weeds. Once these weeds are controlled, these areas should be monitored continually and spot-sprayed when needed as part of the annual maintenance plan.

There are only a few dense and large patches of these species (mostly Canada thistle). These dense patches may take an additional 1-3 years of herbicide treatments to get under control.

Special consideration for riparian weed species: Weed species like Canada thistle, curly dock, and reed canarygrass are often found in wet areas, including the various stormwater facilities in this community. Herbicide in and around water (including saturated soils) must be used very carefully and in strict accordance with label instructions.

Annual species: Kochia is particularly difficult annual weed to manage, but annual mustards like blue mustard, flixweed, and tumble mustard can also be aggressive in highly disturbed areas. Annual plants produce as many seeds as possible because the individual plants die off each year. The most effective control is to establish other more competitive vegetation (native grasses in this case). While the other vegetation gets established, a combination of correctly-timed mechanical and chemical control can help to reduce seed production and deplete the soil seed bank.

- Two herbicide applications for kochia in the spring when plants are less than 3” tall
    - Recommend chemical Vista XRT (fluroxypyr) with a methylated seed oil surfactant. Per the label, 2,4-D can be added to the tank mix when kochia plants are larger.
        - Recommend an amine formulation of 2,4-D to minimize risk of off-target damage from volatilization.
        - <u>2,4-D should not be used alone to treat kochia because many plants are resistant to this herbicide.</u>
    - Targeted spot-spraying only.
- One herbicide application for mustard species (blue mustard, flixweed, tumblemustard) in spring.
    - Recommend chemical Telar XP (chlorsulfuron) or Plateau (imazapic) or other broadleaf herbicide labeled for mustard species.
- Two spot-mows in late summer and early fall for other annual species
    - Again, monitor plant development and mow when plants are producing pollen.

- Note: excessive mowing prior to flowering will cause annual weeds to produce flowers lower and lower on the plant. Eventually, the flowers will be too low for mowing equipment to reach and the plants will successfully produce seeds.

Timeline: Because annual weeds produce tremendous amounts of seeds that wait in the soil, control of these species can take many years. Management must be diligent and well-timed to minimize additional seed production. The best long-term strategy to control annual weeds is to establish a healthy native plant community while reducing the weed seeds in the soil. Once the native plant community is established and functional, the occasional annual weed may be seen, but it is very unlikely to spread and displace desirable species.

Other Native Area Maintenance

Mowing

Native areas: I strongly recommend against any full mows in 2026. These grass species are not adapted to frequent mowing and the plant community will be healthier if it is left to grow naturally.

Beauty bands: Beauty bands are acceptable along trails, property lines, etc. Limit beauty band mowing to 5 times per year. Set mower deck as high as possible and mow with the narrowest equipment possible. If the grasses are growing quickly, additional beauty band mows can be scheduled.

String trim along property lines and edge along sidewalks twice per year.

Ensure that property lines are dry enough to access with equipment. Residential property lines often receive extra water from landscaping, sump pumps, and stormwater.

Irrigation

Most of the native areas in the community will not require supplemental irrigation in 2026. However, the irrigation system should continue to be maintained so that it is available in extreme drought situations. In nature, the loss of plant cover due to extreme drought is part of the regular cycle of change in an ecosystem. But in developed areas, loss of plant cover causes aesthetic and management concerns.

A few native areas would benefit from continued irrigation this year if resources allow. These are shown on **Map 2 on page 7**. Irrigation schedules for these locations should be set to provide deep soil saturation to encourage root growth.

Approximate Timeline

Year 1 (2024)
- Biennial/perennial weed control: spot-spray with herbicide in spring and fall, mechanical removal in summer to reduce seed production.
- Annual weed control: spot-spray with herbicide in spring and summer, appropriately-timed mechanical control in late summer to reduce seed production.

Year 2 (2025)
- Continue biennial/perennial and annual weed control.
- Hand-seed any small bare areas, especially those where there was heavy weed cover the previous year.
- Continue irrigating existing seeded areas as required to encourage deep root growth.

Year 3 (2026 – This year)
- Continue biennial/perennial and annual weed control. Weed populations should be significantly decreased by Year 3.
- Irrigation should only be needed in the most recently seeded areas, if at all. The irrigation system should be maintained so that it is available to support the grasses in extremely hot, dry conditions as the arise.

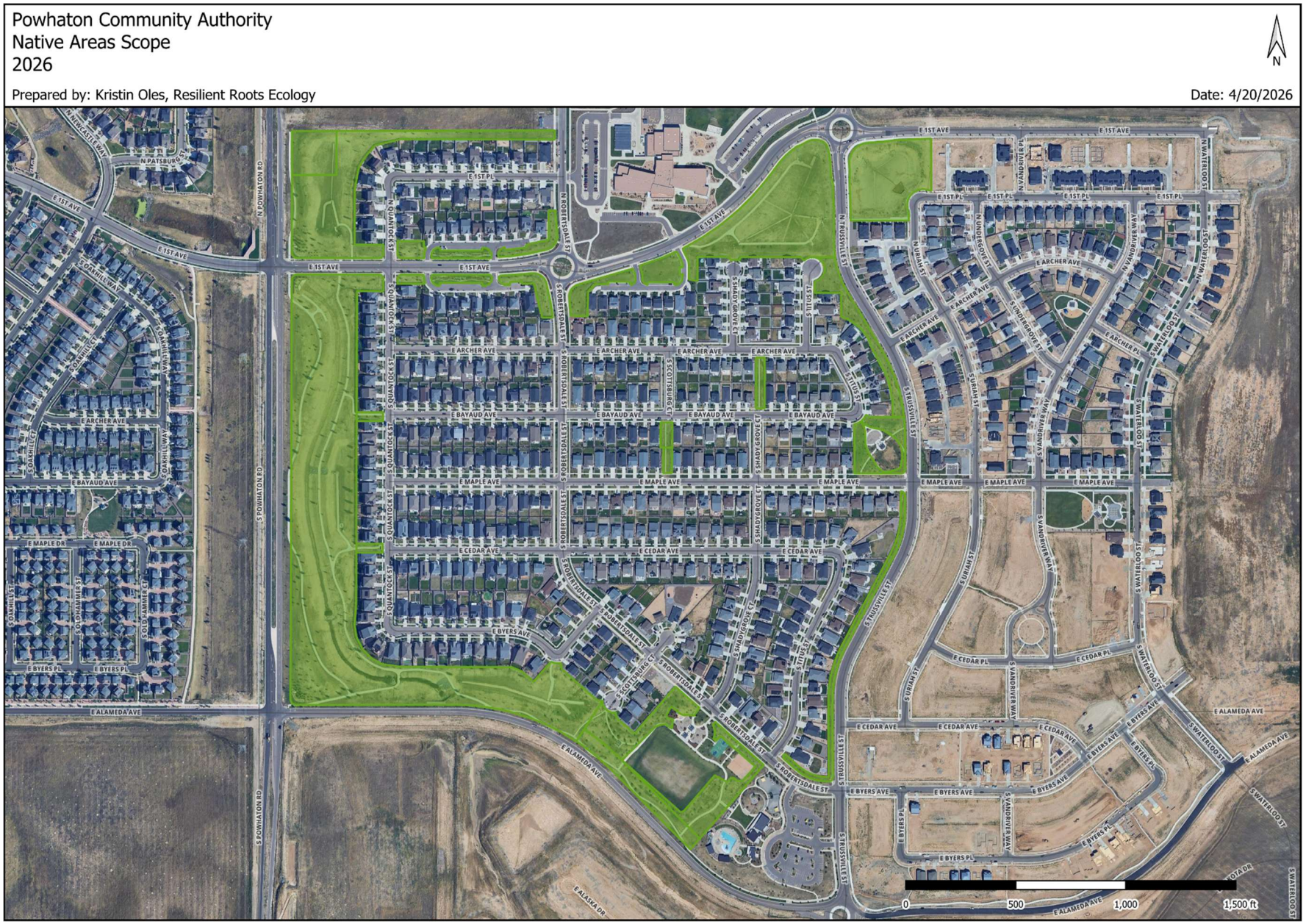
Year 4 (2027)

- Begin regular annual maintenance: monitor for all weeds (including new species, especially in riparian areas) and manage as appropriate (chemical and mechanical control).
- Monitor for newly disturbed areas. In smaller areas, grass seed can be spread by hand.
- Broadcast wildflower seeds in weed-free, well-established grass areas.

Year 5 (2028)

- Continue to monitor and manage weeds as needed.
- Monitor wildflower seed areas for new wildflowers.
- Monitor for new disturbance.

Map 1.


Powhaton Community Authority
Native Areas Scope
2026
Prepared by: Kristin Oles, Resilient Roots Ecology
Date: 4/20/2026
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500
1,000
1,500 ft

Map 2. Recommended irrigation locations