

## CITIZEN FACT SHEET

### INTEGRATED PEST MANAGEMENT IN DEVELOPED PARKS • [LEARN MORE](#)

#### HERBICIDE-FREE PARKS

**Please note: In all City parks, herbicides are **not** used in or on picnic shelters, playgrounds, volleyball courts, splash decks or other water sources.**

In addition, Parks and Recreation annually designates certain parks as herbicide-free public spaces. The herbicide-free parks are listed online [here](#).

Herbicide-free parks will rotate over time, based on an annual weed inventory of the parks system, park maintenance costs, protection of park infrastructure and public input.

The department will manage weeds in these parks with a variety of manual techniques like mowing, hand-pulling, string-trimming and mulching. These parks contain lower levels of weed infestation, allowing parks staff to use manual techniques to maintain desirable turf grasses.

#### VOLUNTEER TO HELP MINIMIZE HERBICIDE USE IN NEIGHBORHOOD PARKS

Sites with minimal weed infestation can be kept in check by using manual methods of weed control. Weed prevention is the preferred method to reduce herbicide use. Neighbors may volunteer to install mulch around trees and buildings, or hand-pull or hand-trim weeds to keep desirable turf grasses and native plants flourishing. If you're interested in volunteering or "adopting" a park to reduce weeds and help minimize or avoid herbicide use, please contact Volunteer Coordinator Tyler Decker at [deckert@ci.missoula.mt.us](mailto:deckert@ci.missoula.mt.us).

#### WHY SHOULD WE CONTROL WEEDS?

Weeds steal nutrients, water, sunlight and carbon dioxide from desirable plants and grasses. Because most weed types germinate easily and are aggressive in nature, they make it difficult for turf, groundcovers and native plants to compete once weeds are established.

Some weeds are a nuisance because they have thorns or prickles, some have chemicals that cause skin irritation and allergies or are hazardous if eaten, or have parts that come off and attach to fur or clothes. Weeds can severely damage paths and walkways, creating pedestrian hazards and expensive repairs. At high densities, broadleaf weeds reduce suitability of sports fields for their intended use, creating trip and fall hazards.

Finally, state law requires landowners to manage noxious weeds to prevent them from negatively impacting land used for forestry, agriculture, livestock, wildlife, native plants or other beneficial uses.

## AN INTEGRATED APPROACH TO VEGETATION MANAGEMENT

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The Parks & Recreation Department manages over 4,275 acres of public lands for parks, trails, conservation lands, and landscaped right-of-ways, with new lands and facilities being added nearly every year. Through Integrated Pest Management (IPM), the department manages pests that are detrimental to the health, function or aesthetic value of parks in an effective and environmentally responsible manner, with utmost consideration to public and employee safety.

Thoughtful, timely and selective use of herbicides is just one tool of many used to maintain park lands.

## THE VEGETATION MANAGEMENT TOOLBOX – WEED PREVENTION IS THE KEY

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Parks and Recreation strives to develop low-maintenance, minimum herbicide use landscapes. Comprehensive landscape design practices like proper plant selection and planting design; use of geotextiles for weed control, surface stabilization and good construction practices are our best tools for reducing maintenance costs and herbicide use.

Developed parkland management strategies, ranked in order of frequency of use:

1. IPM-based landscape design.
2. Mowing and irrigation.
3. Fertilization, aeration, top dressing, reseeding.
4. Mechanical control (such as weed pulling and trimming.)
5. Mulching.
6. Field rotation and use restrictions.
7. Geo-textile and barrier fabrics.
8. Herbicides.

## CONSIDERATIONS BEFORE EACH HERBICIDE APPLICATION

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1. Health and safety of citizens and staff.
2. Health of the environment.
3. Comprehensive staff training in use of herbicides.
4. Compliance with all local, state and federal regulations.
5. Before applying an herbicide, the following factors are considered:
  - a. Does the density of pest plants meet or exceed the threshold for treatment?
  - b. Have non-herbicide options been considered and tried?
  - c. Are appropriate cultural methods in place to ensure that the weed is not being promoted?
  - d. Have we selected the least toxic herbicide to be effective, and are we applying at the lowest dose?

## PUBLIC NOTIFICATION: 24 HOURS BEFORE AND 24 HOURS AFTER APPLICATION

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Several federal and state agencies regulate the use of herbicides. Parks and Recreation conforms to all applicable herbicide laws and regulations. The department **exceeds legal requirements** by posting areas to be treated 24 hours before application and 24 hours after application. Multiple signs are used to mark treated areas. These signs include information about the herbicides being applied as well as contacts for additional information.

## GLYPHOSATE

The product most commonly used in parks is glyphosate. Glyphosate is sprayed directly on the weed's foliage, absorbed systemically through the plant and becomes inert when it dries or comes into contact with soil or heat/sunlight.

### AREAS WHERE HERBICIDES ARE NOT USED IN DEVELOPED PARKS, TRAILS, MEDIANs:

Per department standards, herbicide manufacturer's directions and EPA regulations, herbicides are not used in or on picnic shelters, playgrounds, volleyball courts, splash decks or other water sources.

### WHERE ARE HERBICIDES USED IN DEVELOPED PARKS, COMMUTER TRAILS, & MEDIANs?

- **Landscaped street medians and shrub beds:** To maintain motorist visibility, comply with state weed control laws, protect planted ornamental vegetation, and respect citizen requests for City street medians and highly visible shrub beds to be attractive gateways to our community. In addition, treating medians reduces the staff exposure to hazardous traffic conditions.
- **Athletic fields:** At high densities, broadleaf weeds reduce suitability of sports fields for their intended use. A thick, resilient sports turf prevents injuries; provides quality of play for users; and optimizes the efficient use of water. In addition, fields are treated to meet sports organizations' and user groups' requirements for competitive sport field conditions.
- **In selected park areas,** to reduce infestations of broadleaf weeds and respond to citizen requests to conform to the traditional public aesthetic of mostly weed-free turf areas when other options are not available, effective or efficient.

VEGETATION MANAGEMENT ZONES IN DEVELOPED PARKS, TRAILS, MEDIANs	
PARK FEATURE	BENEFITS OF INTEGRATED PEST MANAGEMENT
Tree wells (mulched area around a tree)	Reduce accidental tree death and damage from mowers and weed eating. Reduced potential for formation of rot, diseases, harboring of insects and pests, competition for nutrients and water. Trees in parks and city ROW are valued at \$500 ea. (new tree), \$20,000 large mature tree.
Sports facility fence lines	Safety: Removal of tall grasses provides a warning track for players that they are approaching a fence, helps prevent injuries to players.
Asphalt trails	Weed growth in asphalt speeds decline and break-up of the wear surface; increases maintenance costs; significantly reduces the useful life of asphalt; and increases potential liability from trips, falls & ice buildup. Asphalt surfaces are continually subjected to moisture, dirt, freeze-thaw cycles and debris build-up, creating and expanding small cracks and potholes. Asphalt trail surfacing is valued at +/- \$2.10 sq. ft.
All other fence lines	Limit habitat for pests, maintain site distances, and maintain park and adjoining property values.
Maintained ROWs (landscapes and hardscapes)	Maintain safe sight distance and intersection safety standards, minimize work safety risk exposure.
Buildings, walls, light standards, other vertical features found in turf and along commuter paths.	Safety and security for park users, health and sanitation, extend hours of use, maximize useful life, reduce vandalism. Reduce potential for mice, ants, hornets and other pests; provide clear and safe access routes, easily identify potential trip hazards, prevent mold, mildew, dry rot and pest damage to wood features.
Park Amenities: parking lots, tennis courts, horseshoe pits, walking paths, some athletic fields.	Protection of park users: Control of vegetation protects users from trip and fall hazards, insect infestation, noxious weeds bearing stickers and thorns, and better ensures compliance with safety standards. Vegetation management in these areas reduces surface damage (asphalt, concrete, tennis court coatings and turf); maximizes useable lifecycle of features; minimizes maintenance costs and optimizes play value.

## HOW ARE HERBICIDES APPLIED? TWO METHODS:

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1. **SPOT APPLICATION:** by Parks and Recreation staff. Limited wand or sprayer application to individual or small groups of weeds using minimal amounts of product to reduce exposure to park users, the environment, staff. The product most commonly used for this type of application is glyphosate. Glyphosate is sprayed directly on the weed's foliage, absorbed systemically through the plant and becomes inert when it dries or comes into contact with soil or heat/sunlight. Spot applications are used in:
  - a. Hard-to-mow areas like fence lines, landscaped shrub beds, tree wells, sign posts; to maintain the health and quality of desirable vegetation in the most cost-effective and fuel-efficient way.
  - b. Some hard surfaces: parking lots, sidewalks, building foundations, paved trails to prevent damage to paving/concrete and provide a safe, even walking surface.
2. **BROADCAST APPLICATION:** by a licensed contractor. Includes some athletic fields, selected park zones and some street medians, as noted below.
  - a. McCormick Park softball fields
  - b. Fort Missoula baseball and sports fields
  - c. Selected parks per agreements with Homeowner's Associations or other requests
  - d. Playfair baseball and sports fields
  - e. Selected traffic medians
  - f. City Hall Areas

## SUMMARY:

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The goals of the department's IPM activities in developed parks are:

- Preserve safety of citizens, staff and the environment.
- Minimize number of treatments and quantity of herbicides needed to control noxious weeds.
- Maintain park infrastructure to extend the life span of park fixtures, paving and buildings.
- Manage vegetation and weeds cost-effectively.
- Herbicides are only one integrated pest management tool of many used by Parks and Recreation for weed control.

For more information, phone 552-6253 or email [parkoperations@ci.missoula.mt.us](mailto:parkoperations@ci.missoula.mt.us).

Learn more at [www.missoulaparks.org](http://www.missoulaparks.org).