



Integrated Pest Management Program

Best Management Practices

Overview

Denver Parks and Recreation (DPR) utilizes an Integrated Pest Management (IPM) program that incorporates a multi-strategy approach to reduce pest damage while balancing environmental resiliency, expense, staff, and public safety to support healthy parks in Denver. The DPR IPM program uses best management practices which include preventive, cultural, chemical, biological, and mechanical controls.

Turf

DPR follows a strong turf management program which incorporates proper irrigation, mowing, fertilization, and aeration practices to maintain a healthy turf. A high-quality turfgrass outcompetes weeds for light, water and nutrients, and helps prevent weed infestations. One of the best ways to reduce weed populations, and thus herbicide applications, is growing dense healthy turf. Chemical control is used to supplement cultural practices when pest populations exceed Park Standards in their effect on turf density and health.

Trees

A healthy tree canopy is a crucial part of a healthy city. The Office of the City Forester strives to maintain a healthy and vigorous urban forest through enforcement of city ordinances and rules, adhering to industry standards and best management practices, and following good cultural practices such as supplemental watering, mulching, pruning and removal, diversified tree planting, and matching proper species to existing site conditions. Pesticides are incorporated as part of the maintenance regime when pest populations exceed Parks Standards by adversely affecting desired plant density and/or health or threaten the existence of trees or a tree species.

Display Beds

DPR uses preventive control through proper plant choice and plant spacing in combination with mechanical control (hand pulling weeds) and chemical control to provide 9.5 acres of annual and perennial flowering pollinator beds.

Open Space

DPR creates, protects, and enhances healthy, thriving native ecosystems through consistent noxious weed management and vegetative restoration efforts that reintroduces native grasses and forbs species back into Denver's ecosystems. DPR is committed to managing Colorado noxious weeds through appropriate eradication/elimination, containment and suppression programs as required by the Colorado Noxious Weed Act (C.R.S. 35-5.5-101-119).

Lakes

DPR's lake management program prioritizes identifying and treating any toxic algae blooms first and foremost. The non-toxic filamentous algae present in lakes across our system is managed through mechanical, cultural methods including lake aerators and water column mixers, and aquatic approved chemicals to strike a balance between lake aesthetics and beneficial nutrient uptake by filamentous algae. This helps in reducing food sources for potentially toxic algae.

Hardscape

Hardscape (all non-vegetative park elements) pest management uses a combination of pre- and post-emergent herbicides to control weeds growing through cracks and around man-made objects as a labor savings tool. Mechanical control (hand pulling or string trimming weeds) is only topical and leaves the root system actively growing.

Application Timing

Spring

- Granular pre-emergent application to reduce weed seed germination and reduce the need for spot spraying in tree rings, plant beds, and other mulched areas
- Selective spot spraying for noxious weed control in Open Space
- Selective spot spraying as needed in hardscape cracks and tree rings
- Turf grub control
- Emerald Ash Borer, Ips Beetle, Kermes Scale, European Elm Scale, Mountain Pine Beetle, Gambel Oak Borer, and Fireblight prevention and control in trees
- Tree Growth Regulators for trees as needed

Summer

- Beetle control in flower/rose beds
- Selective spot spraying of weeds as needed in hardscape cracks and tree rings
- Selective spot spraying of broadleaf weeds to provide control prior to turf restoration projects
- Selective spot spraying of noxious perennial weeds typically found in Open Space and riparian areas
- Ips and Mountain Pine Beetle prevention and control for trees as needed

Fall

- Broadleaf weed and grub control in turf, Open space, and plant beds
- Selective spot spraying of noxious perennial weeds in Open Space
- Pre-emergent applications for noxious winter annuals in Open Space
- Tree growth regulators for trees as needed

Winter

- Selective spot spraying for noxious weed control in Open Space
- Pre-emergent applications for noxious winter annual weeds in Open Space
- Cut-stump treatments for woody invasive species
- European Elm and Kermes Scale prevention and control in trees

Pesticide applications performed by:

- Applicator Technicians*
- Certified Operators*
- Qualified Supervisors*

*certified by the Colorado Department of Agriculture

Record Keeping

DPR record keeping complies with [the Colorado Pesticide Applicators Act](#), [Federal Insecticide, Fungicide and Rodenticide Act](#), and the [Colorado Discharge Permit System General Permit for Discharges from Applications of Pesticides](#).