

Integrated Pest Management Case Study

City of Boulder, CO

Scope: Landscapes, Parks, Openspace
Vector Control
Roadsides
Golf Course

Highlights: Reallocation of resources created efficiency
Dedicated 75% FTE IPM Program Coordinator
Dedicated Open Space / Mountain Parks IPM Coordinator
Weekly pesticide notifications publicly available



Purpose

To protect public health, water quality, and federal endangered and threatened species by using the most environmentally sound approaches to pest management, and to reduce and eliminate, where possible, the volume and toxicity of chemical pest control treatments.

Creative Solutions

City offers transparency

Departments submit planned pesticide use on a weekly basis. We post it on the web and a recorded telephone line for up-to-date public access. Because departments submit data in a standardized form and it is uploaded to the web, this process takes less than 1 hour weekly. All pesticide applications are also posted on-site at least 24 hours in advance.

Allocating Resources

We found staff were already investing lots of resources for weed management in open space and turf. We worked with field staff to re-allocate their time; now more than 95% of time is spent on non-chemical control. We are working toward employing the PHAER Zone System to prioritize areas for pesticide reduction based on exposure potential. And each department has added IPM services to its volunteer program, continually building our 'Adopt-a-Park' and 'Adopt-a-Flowerbed' participation.

Success Story

When Mediterranean Sage was slated for eradication under the Colorado Noxious Weed Act we were faced with the challenge of eradicating a weed which is spread over thousands of acres in small pockets throughout our natural areas. Our Open Space and Mountain Parks IPM coordinator started working with Americorps volunteers to walk our lands, map populations, and manually remove the weed. This takes about the same time as chemical control, without the need to carry heavy backpack sprayers, have applicator training, or wear protective gear. With one large concerted effort every year Mediterranean Sage populations are on steady decline and we are close to our eradication goal.



Benefits

- Earns public trust
- Protects health of workers, public, and local ecosystems
- Supports City's mission to be a model in sustainability
- Protects the City's valuable natural assets
- Strategic pest management builds in efficiencies
- Protects lower income users of public spaces
- Reduces City liability

Critical Factors for Success

- Expert Technical Advisory Committee will review proposed updates to approved product lists, operations manual, and specific best management IPM plans.
- Form 3-tiered Interdepartmental IPM Review Group:
 - *Executive Team* to approve policy direction and appoint management team
 - *Management Team* represents departments and programs to develop plans, make policy recommendations, and appoint operations team;
 - *Operations Team* of IPM field staff to develop BMPs, review policy for practicality in real-world operations, and meet monthly to discuss challenges, share information, collaborate on problem solving.
- Approved Pesticide Lists of low-impact products tailored to the needs of each department
- Plan to use PHAER Zone System to prioritize areas of high exposure potential for pesticide reduction
- Incorporating IPM requirements into leases of land owned by the City.

Results

- No synthetic pesticides applied to turf in landscaped parks, play areas, tournament-level athletic fields, creek corridors, or downtown civic areas
- Reduced pesticide use in urban forestry by 62%
- 90% of medians maintained chemical-free

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Model Language

Purpose:

This policy is intended to provide a basis for pest and vegetation management that will protect public health, as well as water quality, federal endangered and threatened species, and state, county and local species of concern. The goal of the city's IPM policy is to utilize the most environmentally sound approaches to pest management, and to reduce and eliminate, where possible, the volume and toxicity of chemical pest control treatments.

Integrated Pest Management Procedure:

The City assumes that all pesticides are potentially hazardous to human and environmental health. Therefore, reasonable non-pesticide alternatives shall be given preference over chemical controls by following the IPM procedure. City staff will evaluate alternatives to chemical treatment, including the cost-effectiveness of the treatments.

Record-keeping and Evaluation:

Each department, division or work group shall keep accurate records of all Integrated Pest Management treatments used and the results. Information on all treatments (including non-chemical ones) shall include how, when, where and why the treatment was applied and the name of the applicator. This information will be submitted to the City IPM Coordinator.

Treatment Selection Criteria:

1. Least-disruptive of natural controls
2. Least-hazardous to human health
3. Least-toxic to non-target organisms
4. Least-damaging to the general environment
5. Most likely to produce a permanent reduction in the environment's ability to support target pests
6. Cost-effectiveness in the short- and long-term

Treatment Strategies:

Commitment to the most environmentally sound approach is expected, with non-chemical methods considered first. The following treatments are listed in the order in which they should be executed:

1. Prevention
2. Cultural
3. Mechanical
4. Biological
5. Chemical

Contractor Responsibilities & Requirements

All contractors working for the City are required to abide by the City's IPM Policy and to have a pesticide applicator's license if they will be applying chemical pesticides.

Upcoming Changes

The City of Boulder has undergone a major audit and evaluation of their IPM program and will be establishing a more rigorous and prescriptive IPM policy by January 2013. Anticipated updates include prioritization of high-exposure zones, expansion and solidification of the Interdepartmental IPM Review Group and the Technical Advisory Committee, investment in staff expertise by expanding opportunities for staff continuing education and networking, and updating of the departmental Allowed Pesticides lists as well as the process for adding and removing products.