



WILSONVILLE  
OREGON

# INTEGRATED PEST MANAGEMENT

Review of 2023 Activities



# INTEGRATED PEST MANAGEMENT (IPM)

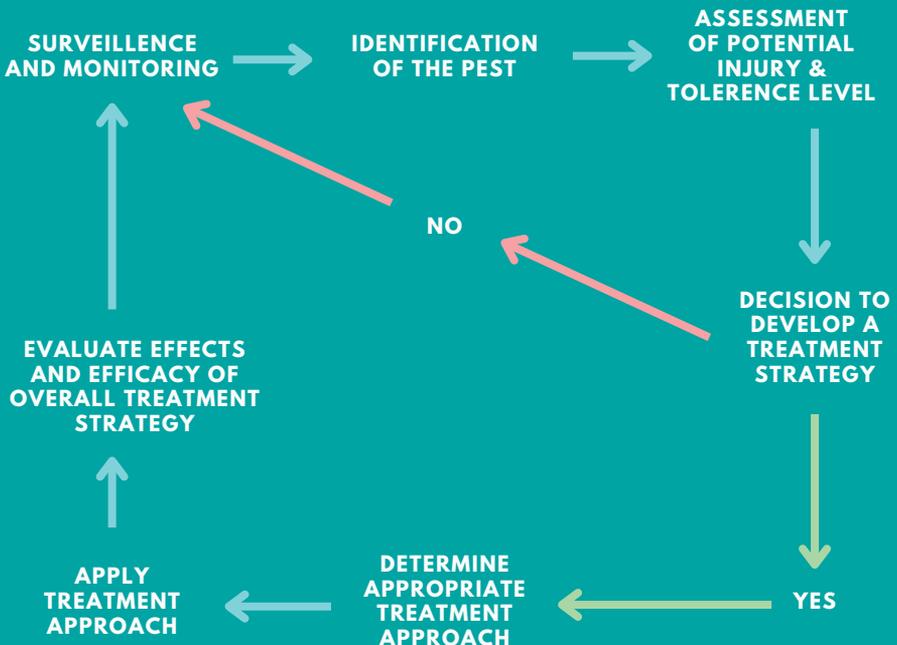


The City of Wilsonville recognizes the importance of sound environmental stewardship. The City is committed to optimizing management practices that protect the people and the environment, including surrounding facilities, parks, and infrastructure maintained by City staff.

Pests can be a troublesome and persistent problem. Choosing the appropriate response requires careful planning and treatment to ensure a successful result. Whether the target pest is a plant, insect, or animal, the City's response considers public safety, environmental health, and available resources.

Integrated Pest Management (IPM) at its core is a decision making process. IPM offers a broad-based approach that relies on common-sense practices that reduce the risk associated with pest treatment. An IPM Plan identifies management areas, key pests of concern, and outlines a treatment strategy mindful of pest biology and available resources.

## DECISION MAKING FLOW: HOW AN IPM PLAN IS IMPLEMENTED



# IPM PROGRAM GOALS

The goals for selecting treatment principles and developing pest management strategies include:



Preservation of natural resources, including pollinator and wildlife habitat



Emphasize practices to minimize risk to human health



Ensure cost-effectiveness in the short and long term



Reduce chemical pest control treatments when possible



Evaluate the efficacy of treatment strategies and the Integrated Pest Management program overall

## IDENTIFYING PESTS & DEVELOPING A PLAN

Many of the most common pests are familiar to the public. They include gophers, rats, yellow jackets, cockroaches, and plants, such as poison oak and Himalayan blackberry.

Treating pests that pose a health risk is imperative, particularly in areas where human activity is high.

The City's IPM Plan relies on the following steps in addressing pests of concern:

Define areas requiring treatment

Maintain plant health through management practices that optimize pest tolerance

Identify key pests of concern

Determine pest life cycle and target appropriate life stage for treatment



Scout and monitor for the presence of pests

Implement treatment strategy when pest populations are observed

Document scouting and monitoring observations, treatments, and results

Determine if treatment strategy reduced or prevented pest populations



# FOUR APPROACHES TO PEST MANAGEMENT

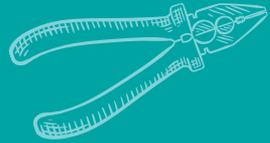
There are four categories of practices used by the City of Wilsonville to control pests. Cultural, mechanical, and biological practices are prioritized over the use of chemical treatments.

1



Cultural practices are proven agronomic and horticultural practices that optimize plant health, suppress non-beneficial insects, disease, and inhibit weed growth.

2



Mechanical practices use a variety of tools and equipment to eliminate pests, suppress their reproductive capacity or block them out.

3



Biological practices use living control agents to act as predators or parasites of pest species. This approach also utilizes other beneficial organisms that improve plant health by enhancing soil quality.

4



With IPM, chemical practices are considered a last resort when cultural, mechanical and biological options are not effective. A treatment strategy that utilizes a chemical approach accounts for the greatest level of protection for people and the environment.



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# EARLY DETECTION & RAPID RESPONSE

Not all pests are invasive but those that are can quickly become a difficult issue for crews to manage. If left unchecked, invasives can rapidly expand their range resulting in control efforts that are expensive, ineffective, or both.

The City employs the principle of Early Detection and Rapid Response (EDRR) to stay ahead of pests by ensuring any new invasive establishments are rapidly identified and appropriate early control measures are implemented.

## MEDITERRANEAN OAK BORER



In response to the emergent threat posed by the Mediterranean Oak Borer (MOB), the City collaborated with key stakeholders such as the Oregon Department of Agriculture, the Oregon Department of Forestry, Metro, and leading arborists, to develop and implement treatment strategies to mitigate the impact of a local MOB infestation.

Arborists administered insecticides and fungicides to publicly-owned Oregon white oak trees, while city staff engaged with homeowners associations and private landowners

to extend protection efforts to trees on private property. Through these coordinated initiatives, our city successfully halted the advance of MOB, safeguarding our cherished treescape and ensuring its resilience for the future.

# CULTURAL AND MECHANICAL TREATMENT IN ACTION

The City of Wilsonville's Park Maintenance staff continues to implement new and innovative ways to manage invasive species.



## GOATS

The City has partnered with a contractor to help manage an acre of invasive plants in Memorial Park. About 25 goats spend almost two weeks in the park in May, eating Himalayan Blackberries, English Ivy and Holly.

The City's Parks team is pleased to have introduced this innovative cultural IPM method to help control invasive species.

## FLAIL MOWERS

With the purchase of a new flail mower attachment for the City's excavator, City maintenance crews are now able to effectively remove invasive blackberry, clear roadside shoulders, and remove various invasive species throughout Wilsonville.

The excavator's long reach now makes it possible to mechanically treat area of invasive and weedy plant species that were previously untouched.



# CHEMICAL METHODS: WHEN OTHER TREATMENT STRATEGIES FAIL

Reducing chemical use is an important objective of the City's IPM plan.

Chemical controls are only used if other practices are not fully effective or too costly to implement. Any chemicals used are applied in a selective manner that reduces risk to humans and the environment.

The City monitors which practices it uses to control pests, including the acreage treated.

While this report illustrates the City's reliance on cultural or mechanical practices in favor of chemical practices, the most recent data demonstrates an uptick in chemical use during the last year.

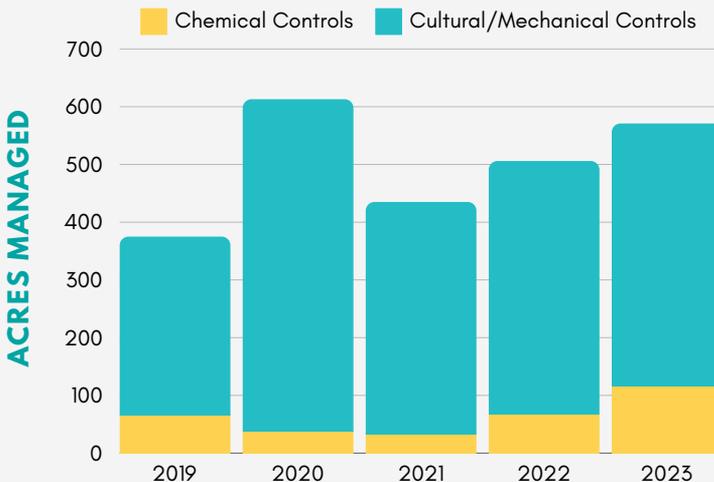
This result is explained by three factors:

1. New Oregon Department of Agriculture guidance mandated a change to the methodology for tracking acreage in our database.

2. An increase in the number of park acres, total facilities, and lane miles managed by the City.

3. The introduction of new invasive pests that cannot be removed with cultural/mechanical controls, leaving only chemical control methods as the only viable option.

## PEST CONTROL PRACTICES



# USING PESTICIDES

## TO REDUCE THE USE OF PESTICIDES

In the fall of 2022, Facilities staff applied the active ingredient Glyphosate (product name, Round-UP) to the City Hall property for the first time, after several years of hand pulling weeds to maintain control. The Facilities staff used sixteen total ounces of Glyphosate over the entire property. Over the course of the next two growing seasons, with proper timing and the use of a pre-emergent approach to weed control, the Facilities team only used six ounces of Glyphosate in the early spring of 2024.

The Facilities team modified their treatment strategy at City Hall, resulting in a reduction of the prevalence of weeds at that site and the usage of post-emergent applications by over 62%. This result was achieved because hand weeding has the tendency to increase seed germination by disturbing the soil while attempting to remove weeds. By using a pre-emergent approach, treating weeds on a proper timing schedule, and zone treating with a post-emergent pesticide, all in conjunction with decreased soil disturbance, Facilities staff have, and will continue to see, even more impressive results in reducing our dependence on pesticide applications.

-FACILITIES GROUNDS TEAM

## FOR MORE INFORMATION

The development of the City's Integrated Pest Management program is a collaboration among Public Works, Natural Resources and Parks Maintenance staff.

This report, and additional information about the City's Integrated Pest Management, is available at [ci.wilsonville.or.us/naturalresources](http://ci.wilsonville.or.us/naturalresources)

To receive a copy of this report by mail, call 503-682-4960.



## DIRECTORY

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Natural Resources (503) 570-1570

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City of Wilsonville Website [ci.wilsonville.or.us](http://ci.wilsonville.or.us)