

COUNCIL POLICY			
Subject: CITY-WIDE INTEGRATED PEST MANAGEMENT POLICY	Policy Number	Effective Date	Number of Pages

BACKGROUND

The City of Santa Rosa (City) has responsibility for the maintenance of land and landscapes in City parks, open space areas, traffic islands, road frontages, city buildings, plazas, parking lots, drainage channels, creeks, pump stations, water tanks, and rural sites. Inherent in this responsibility is the management of pests, including unwanted plants, insects, rodents, and fungus. Pests are controlled for assorted reasons including public safety, public health, plant health, aesthetic, and control of invasive plants, pathogenic organisms and/or insects.

The need for a city-wide Integrated Pest Management (IPM) Program is identified in the Russian River Friendly Landscape Guidelines (RRFLG). The RRFLG guidelines set forth seven best practices for managing landscapes in a sustainable manner, which include: landscaping for local conditions, developing and maintaining landscapes that generate less waste for landfills, nurturing the soil, conserving water and energy, protecting water quality and air quality, and creating and protecting wildlife habitat. An effective IPM program is a good start to developing sustainable landscapes.

PURPOSE

The purpose of this IPM Policy is to attain the City's goal of using long-term pest management strategies that protect human health, the environment and non-target organisms. This Policy provides guidelines for a City-wide IPM program and establishes standardized protocols for the management of pests.

The goals of this IPM Policy are as follows:

- Eliminate the need to use pesticides in sensitive areas like playgrounds, picnic areas, and public gathering spaces. Reduce the use of pesticides throughout city landscapes including roadway medians and parking areas.
- Provide for the utilization of alternatives to chemical control methods in the control of pests.
- Where chemical treatment control methods become the only effective tool to manage a pest, select the "least-toxic" pesticides that will provide acceptable control of the pest.
- Ensure safe application of pesticides following best management practices.
- Provide appropriate pre-and post-notification of pesticide application in parks and other

areas where the public may be affected.

- Ensure pesticide usage does not threaten water quality.
- Ensure pesticides are not applied within the storm drain system including drainage ditches and low-impact development strategies.
- Ensure that no banned or unregistered pesticides are stored or applied.
- Ensure staff applying pesticides are certified in the appropriate category by the California Department of Pesticide Regulation or are under the direct supervision of a pesticide applicator certified in the appropriate category.
- Implement procedures to encourage the retention and planting of native or drought-tolerant vegetation to reduce water, pesticide, and fertilizer needs.
- Reduce the use, storage, and handling of hazardous pesticides to reduce the potential for spills.
- Report all pesticide use by City staff and contractors working on City-owned property annually as a part of the annual Stormwater Report. Information on pesticide use will be presented to the public on the City's webpage devoted to IPM.

DEFINITIONS

- 1) **Action Threshold** is an observable condition or set of conditions that must be present before a pest control method can be initiated. Action thresholds are calculated to initiate a specific pest control method(s) when it will be effective in keeping the pest population below an injury level. Typical action thresholds found in this program include:
 - a) Observing the pest in a specified abundance.
 - b) Observing a specified amount of pest damage.
 - c) Observing specific environmental conditions favorable pest environment
- 2) **Fungicide** is a pesticide, synthetic or organic, that controls fungus.
- 3) **Glyphosate** is an active ingredient found in many widely used herbicides that can kill certain weeds and grasses. Common herbicides that have glyphosate in them are Roundup and Rodeo.
- 4) **Herbicide** is a pesticide, synthetic or organic, that controls weeds.
 - a) **Selective herbicides:** Chemicals that kill specific types of plants, such as grass plants or broadleaf plants.
 - b) **Nonselective herbicides:** Chemicals that kill all types of plants.
 - c) **Contact herbicides:** Chemicals that kill the plant only where the chemical touches it. To be effective, the entire plant must be thoroughly covered with the product. They are quick-acting and useful in controlling annuals, biennials, and seedling perennials.
 - d) **Systemic herbicides:** Chemicals that are absorbed through the leaves or roots and move freely throughout the plant. Application to part of the plant will kill the entire plant. Systemic herbicides are effective against most plants and are recommended for perennials. They take time to be effective and may be soil- or foliage-applied.
 - e) **Soil-applied materials** may be selective or nonselective, depending upon the material and the rate of application. Primarily used for preemergent applications.
- 5) **Insecticide** is a pesticide, synthetic or organic, that control insects.

- 6) **Integrated Pest Management (IPM)** is a pest management strategy that focuses on long-term prevention or suppression of pest problems with minimum impact on human health, the environment and non-target organisms. These strategies require the selection, integration and implementation of various pest control techniques considering the various economic, ecological, and sociological consequences. The most effective ways to manage pests use a combination of four control categories: biological, cultural, mechanical/physical, and chemical.
 - a. **Cultural controls** are management practices that reduce the incidence of weed infestations by using proper planting times and planting rates, planting mulching, managing fertilization and irrigation to favor desired plants rather than weeds.
 - b. **Mechanical/Physical controls** physically disrupt the weed by hand-pulling, hoeing, mowing, tilling, and flooding.
 - c. **Biological control** is the use of a living organism to manage pests.
 - d. **Chemical control** involves the use of herbicides, synthetic or organic, to manage pest plants.
- 7) **Neonicotinoid** pesticides are a class of neuro-active insecticides that kill a wide-variety of insects. Plants sprayed with these insecticides uptake the active ingredient and convey the poison to any insect that feeds on the plant, including non-target species like bees as they pollinate the plant.
- 8) **Organic**, in horticultural terms, is defined as a method of growing or maintaining ornamental or food plants without the aid or application of synthetic chemicals (fertilizers, pesticides, hormones, etc.).
- 9) **Organic Materials Review Institute (OMRI)** is an international nonprofit organization that determines which input products are allowed for use in organic production and processing. OMRI Listed® products are allowed for use in certified organic operations under the USDA National Organic Program.
- 10) **Personal Protective Equipment (PPE)** is worn to minimize exposure to hazards. Examples in pesticide applications include chemical resistant gloves, eye protection, and disposable chemical resistant suits.
- 11) **Weeds** are unwanted vegetation or a plant that is not valued where it is growing and is usually of vigorous growth; especially one that tends to overgrow or choke out more desirable plants. Weed Control is most effective when it includes several strategies.
- 12) **Weed prevention** includes using transplants, amendments and mulches that are known to be weed-free and cleaning vehicles and equipment to prevent the spread of weed seed and weed plant parts from one area to another. Prevention also includes removing weeds before they can form seed heads or spread by other methods.

POLICY

City staff and contractors performing pest control work for the City in landscaped areas must follow the IPM Policy and guidelines as set forth. This Policy sets forth prohibitions on the use of neonicotinoid-containing pesticides and glyphosate-containing herbicides including, but not

limited to: Roundup, Rodeo, and Ranger. Specific management actions for common pest species and specific action thresholds are described in detail in Appendix A. The pest control methods established by this Policy shall be used only if evaluation indicates they are needed, or impacts have surpassed thresholds described in Appendix A. Treatments shall be performed with the goal of removing only the target organism. Pest controls shall be selected and applied to minimize risks to human health, non-target organisms, and the environment, and pesticides shall be selected that do not threaten water quality. The higher the potential for human, animal, or water exposure in an area, the more vital it is to use a very low-hazard pest management material.

All pesticide treatments are prohibited within dog parks, children's playgrounds, group picnic areas, creeks and bio-swales or bio-retention areas. For shared school-park sites, and parks with childcare or pre-school buildings, pesticide treatments must only be applied on days when students are not present. Pesticide applications must follow all provisions of the Healthy Schools Act (California Education Code Sections 17608-17613) including recordkeeping, posting, and pesticide use reports.

Exceptions to glyphosate prohibition

Glyphosate may be used in specific instances as follows:

- In medians and parking areas where impact to the public is at a minimum.
- In cases where the Fire Marshal or Police Chief has determined it is necessary for public safety.
- On ball fields when the fields are closed for renovations.
- On invasive plants where control would only be needed to remove the existing plants and allow the natural plant community to occupy the landscape.

Special conditions when applying glyphosate

City staff and contractors utilizing glyphosate compounds must use increased PPE including, at a minimum: chemical resistant gloves, protective eyewear, chemical resistant boots, and a disposable chemical resistant suit that covers the applicators' clothes and exposed skin (e.g., Tyvek coveralls with a hood).

Procedures

The following recognized IPM techniques shall be used to control pests. In the management of a pest, as many of these methods as necessary shall be used.

Monitoring

- Establish action threshold levels for pest damage, injury, or nuisance.
- Identify pests and beneficial species and track population levels.
- Review site history to determine past control activities.
- Plan and schedule any treatment option at the target pest's most vulnerable stage.

Mechanical/Physical

- Barriers to exclude entry or introduction of pests. Inspecting new plants before being planted.
- Use of mulch materials or weed fabric.
- Controlled burning.
- Solarizing/tarping to treat seedbank.
- Use of traps.
- Whitewashing trunks of young trees to prevent sunscald.
- Use of discs, weed mowers, string weed trimmers, hoes and hand pulling of weeds.
- Removal of infested plants or plant parts (except for rare and endangered and culturally historical significance).
- Thinning of a tree or shrub to improve air circulation in the canopy.
- Thinning of canopies to increase temperatures for insect control.

Cultural

- Selecting plant materials suited to the site and/or those that have natural pest resistance.
- Providing conditions conducive to healthy plant growth.
- Designing and adjusting irrigation system.
- Ensuring proper soil fertility through mulching, compost, or appropriate fertilizer, avoiding nutrient deficiencies and excesses. Health desired plant that will out compete unwanted weed pests.

Biological

- Use of cattle, sheep, goats, or other grazing animals.
- Encouraging plant diversity to provide food and habitat for beneficial species.
- Maintaining existing populations of beneficial organisms.
- Supplementation of beneficial populations through releases.
- Use of “biological” or non-chemical pesticides.

Chemical

- Use of least-toxic pesticides and the lowest recommended label rate to achieve control.
- Selection and use of products, synthetic or organic, that provide acceptable control with consideration given to human health and environmental effects.
- Proper timing of pesticide application
- Spot treatments.

Landscape Design Considerations

Prevention is the single most critical component of landscape IPM. Recognizing the potential for future pest problems when designing or modifying a site can minimize and even eliminate many pest problems. Those design considerations include:

- Proper site preparation.
- Properly designed irrigation system.
- Selection of plant materials suited to the site and climate.
- Selection of plant materials with pest tolerance or resistance.
- Use of hard surfaces to eliminate weed problems.
- Use of densely growing plants that will choke out weed growth.

Pest Control Recommendation

Any time that a chemical control measure is warranted, regardless of threshold levels, a least-toxic pesticide will be considered first. Follow-up inspections will take place at specific intervals or pre-determined times to evaluate control.

Applicator Training

Continuing education is required by law for Pest Control Advisors and Qualified Applicators to keep their licenses and certificates current. This education is in the areas of laws and regulations and pest control methods and is offered through seminars approved by the State Department of Pesticide Regulation. Personnel involved in pesticide handling and application activities are required by law to have annual training on the safe and proper handling of pesticides. By law, employees and contractors are required to follow product label instructions and to confine sprays to the site being treated. Treat only the smallest area necessary by treating only the targeted pest. Do not allow pesticide to drift away from target areas. Unregistered pesticides shall not be used.

Maintenance Staff Training

The success of any IPM program is dependent on the skills and knowledge of those involved with its implementation. Information and training are to be provided for all maintenance staff and will include:

- Principles and components of IPM.
- Management strategies regarding pests common to all areas.
- Management strategies regarding specific pests to specific areas.
- Non-chemical pest control techniques.

Public Education and Notification

To ensure that the public and City staff are aware when pesticides are to be used in parks, public building landscapes, or roadways, any of the following methods or combinations of methods are to be utilized:

- Signs
- Isolation, in combination with signs
- Blue indicator dye in spray mix
- Media sources/neighborhood notification

Signs

Posting signs is intended to warn individuals that a pesticide application is planned or recently occurred. Signs shall be posted at public entries to sites such as gates and walkways. If the location

is not publicly accessible or not intended for public recreation use, signs may be fewer. Posting duration shall comply with the State Healthy School Act where adjacent to schools. In other locations signs shall be posted a minimum of 48 hours prior to the start of the pesticide application and will remain posted for a minimum of 48 hours after the application unless the pesticide label specifies a longer interval. At a minimum, public notification signs shall include the following information:

- Printed in English and Spanish.
- Date and time of planned application.
- Area(s) within a site to be treated.
- Pest, i.e., “weeds.”
- Label name of the product being used.
- Warning to stay out of treated areas for a specific time. Use the produce label as to when re-entry into the treated area(s) is permitted.
- A departmental phone number to call for more information.

Record Keeping and Reporting

Recording of the pesticide application will be completed and maintained by the applicator and reviewed by the individual departments or division overseeing the application or the city representative overseeing the application contact.

Applicator’s departments will make monthly use reports to the Sonoma County Agricultural Commissioner by the 10th of the month following application. In addition, annual pesticide use reports will be sent to the city’s Stormwater and Creeks team for publishing in the annual city-wide annual report. These records are to include:

- Date and time of application.
- Brand name of the pesticide.
- Target pest(s).
- Amount of pesticide used.
- Concentration of pesticide used.
- Quantity of area treated (e.g., acres or square feet).
- Name (or initials) of applicator.
- Location application was made (location, specific site within a park, etc.).