

Town of Hillsborough Integrated Pest Management Policy



and Standard Operating Procedure

Public Works Department
Town of Hillsborough
1600 Floribunda Ave
Hillsborough, CA 94010-6418

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Table of Contents

I. Purpose	3
II. Policy Terms and Definitions.....	3
III. IPM Overview.....	4
IV. IPM Pest Management Hierarchy.....	5
V. Policy Implementation.....	5
VI. Pesticide Use.....	7
VII. Outreach and Resources.....	8
VIII. Policy Update	8
Attachment A: Town of Hillsborough Approved Pesticides.....	10
I. Approved Products List.....	10
II. Town Preferred Glyphosate Alternatives Product List	10
III. Town Recognized IPM Program Approved Products List.....	10
Attachment B: Town of Hillsborough Restricted and Banned Pesticide List	11
I. California Proposition 65 Listed Materials.....	11
II. Carcinogen	11
III. Endocrine Disruptor	11
IV. US EPA Toxicity Category I	11
V. Water Quality Toxicity	11
VI. Foggers, Bombs, Fumigants	12

I. Purpose

The Municipal Regional Permit requires the Town to develop a pesticide toxicity control program for use of pesticides in its municipal operations and on municipal property. The program should be based on the concepts of Integrated Pest Management (IPM) and have an IPM policy and Standard Operating Procedures (SOP) to implement the policy. The purpose of the IPM Policy and SOPs (Policy) is to protect water quality, waterways, the environment and the health and safety of Town's employees, contractors and residents through reduced use of pesticides on Town owned or managed properties.

II. Policy Terms and Definitions

- A. **Municipal Regional Stormwater Permit (MRP)**, formally called the California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater Permit, covers stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo and Santa Clara counties, and the cities of Fairfield, Suisun City and Vallejo. It includes section C.9, Pesticides Toxicity Control, which requires Permittees (e.g., Hillsborough) to implement an IPM Policy.
- B. **National Pollutant Discharge Elimination System (NPDES)** is a federal program that controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The program has been delegated to the State of California for implementation through the State Water Resources Control Board and the nine Regional Water Quality Control Boards.
- C. **Integrated Pest Management (IPM)** is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices and use of resistant varieties.
- D. **Pests** are organisms that damage or interfere with desirable plants in landscapes or wildlands, or that damage buildings or other structures. Pests also include organisms that impact human or animal health. Pests may transmit disease or may be just a nuisance. A pest can be a plant (weed), vertebrate (bird, rodent, or other mammal), invertebrate (insect, tick, mite, or snail), nematode, pathogen (bacteria, virus, or fungus) that causes disease, or other unwanted organism that may harm water quality, animal life, or other parts of the ecosystem.
- E. **Pesticides**¹ are defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. The term pesticide applies to herbicides, fungicides, insecticides, rodenticides, molluscicides and other substances used to control pests.
- F. **Pest Control Advisor (PCA)** is licensed by the California Department of Pesticide Regulations (CDPR), registered with the County Agricultural Commissioner and provides written pest control recommendations for agricultural pest management, including parks, cemeteries and rights-of-way.

¹Antimicrobial agents are not considered pesticides within the scope of this Policy.

- G. **Qualified Applicator License (QAL)** is a licensed applicator according to Title 3, Article 3 of the California Code of Regulations. This license allows supervision by a licensed pest control business of applications that may include residential, industrial, institutional, landscape or rights-of ways.
- H. **Qualified Applicator Certificate (QAC)** is a licensed applicator according to Title 3, Article 3 of the California Code of Regulations. This certificate allows supervision by a gardening maintenance business of applications that may include residential, industrial, institutional, landscape or rights-of ways.
- I. **Pesticide Toxicity Category** is the category established by the United States Environmental Protection Agency (Section 156.10 of Part 156 of Title 40 of the Code of Federal Regulations) for pesticide products. The EPA established four Toxicity Categories, with "Category I" being the highest toxicity category.
- J. **Town Approved Pesticides** is a list of pesticides approved for use on Town properties, as provided as Attachment A to this Policy.
- K. **Town Restricted Pesticides** is a list of pesticides restricted from use on Town properties, as provided as Attachment B to this Policy.

III. IPM Overview

Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of control methods or techniques. Pesticides are used only after monitoring indicates they are needed, according to established guidelines, and pest threshold levels are exceeded. Pest control materials and methods are selected and applied in a manner that minimizes risk to human health, beneficial and non-target organisms and the environment.

Understanding pest characteristics and needs is essential to implementing IPM effectively. Pests seek habitats that provide basic needs such as air, moisture, food and shelter. They often can be prevented or controlled by creating inhospitable environments, by removing basic survival elements or by simply blocking their access. An effective, long-term approach to managing pests uses a combination of non-chemical methods or techniques that work well together. Chemical control methods are used only when implementation of non-chemical control methods have been unsuccessful at reducing pest threshold levels below the established guideline for the pest. Approaches for managing pests are often grouped in the following categories:

- A. **Biological Control** is the use of natural enemies such as predators, parasites, pathogens and competitors to control pests and their damage. Invertebrates, plant pathogens, nematodes, weeds and vertebrates often have natural enemies that can serve this function.
- B. **Cultural Controls** are practices that reduce pest establishment, reproduction, dispersal and survival. For example, plant resistance to pests can often be maximized by paying close attention to soil conditions and irrigation, and changing irrigation practices can reduce pest problems, since too much water can increase root disease and weeds.

- C. **Mechanical and Physical Controls** can make the environment unsuitable for pest survival. Traps for rodents are examples of mechanical control. Physical controls include mulching, mowing or hoeing for weed management.
- D. **Chemical Treatments** with pesticides can be necessary if established threshold levels have been so severely exceeded that other methods are ineffective. Precise recommendations or actions to achieve specific results (i.e., controlling the pest population to a manageable level) is an essential part of an IPM Program. Specific pesticide recommendations are provided by a Pest Control Advisor (PCA) and least toxic options are preferred.

IV. IPM Pest Management Hierarchy

The IPM-based hierarchical decision-making process that will be used to control pests will include the following:

- A. Based on field observations, evaluate locations and sites where pest problems commonly occur to determine pest population, size, occurrence and natural enemy population, if present. Identify conditions that contribute to the development of pest populations and practices that could be employed to manage pest populations;
- B. Design, construct and maintain landscapes and buildings to reduce and eliminate pest habitats;
- C. Modify management practices including watering, mulching, waste management and food storage to discourage the development of pest population;
- D. Modify pest ecosystems to reduce food, water sources and harborage;
- E. Prioritize the use of physical controls such as mowing weeds, using traps and installing barriers;
- F. Use biological controls to introduce or enhance a pest's natural enemies;
- G. When pest populations reach treatment thresholds (based on how much biological, aesthetic, economic or other damage is tolerable), non-pesticide management activities will be evaluated before considering the use of pesticides;
- H. When pesticides are necessary, select reduced-risk pesticides and use the minimum amounts needed to be effective;
- I. Apply pesticides at the most effective treatment time, based on pest biology, monitoring and other variables such as weather, seasonal changes in wildlife use and local conditions; and
- J. Whenever possible, use pesticide application methods, such as containerized baits, that minimize opportunities for mobilization of the pesticide in stormwater runoff.

V. Policy Implementation

- A. **Policy Applicability**
The Town's IPM Policy applies to Town owned and managed properties, including but not limited to parks, open spaces, roadsides, medians, water tank sites, buildings, facilities and structures.

B. Roles and Responsibilities

1. **The Town's Public Works Director** will oversee the Town's IPM Policy and program and maintain communication with county agricultural commissioners.
2. **The Town's Public Works Superintendent** will implement the Town's IPM Policy. Specifically, the Superintendent will:
 - i. Be knowledgeable about IPM and the Town's IPM Policy;
 - ii. Attend San Mateo Countywide Water Pollution Prevention Program trainings;
 - iii. Annually train Town employees and contractors involved with facility and landscape maintenance on the Town's IPM Policy;
 - iv. Document annual IPM training attendance, content and materials for NPDES annual reports;
 - v. Track pesticide use for NPDES reporting;
 - vi. Verify contractor compliance with the Town's IPM Policy and document actions taken to correct contractor performance for NPDES reports; and
 - vii. Ensure proper pesticide application noticing, as required by pesticide manufacturer product guidelines and federal/state regulations.
3. **Town Employees** are responsible for managing contracts and ensuring contractor performance. Town employees will:
 - i. Ensure that contractors follow the Town's contract specifications, the Town's IPM Policy and industry accepted IPM best practices. Town employees are not certified pesticide applicators and do not typically apply pesticides.
4. **Town Contractors** will:
 - i. Comply with all federal, state and local pest control operator regulations, maintain current licenses and possess the appropriate Qualified Applicators License or Certificate;
 - ii. Utilize pesticides safely and in accordance with federal and state regulations;
 - iii. Adhere to the Town's IPM Policy and follow industry accepted IPM strategies that emphasize non-pesticide alternatives to control pests; and
 - iv. Structural pest control contractors should be IPM-certified from a recognized certification program, such as:
 - a. Eco Wise Certified: ecowisecertified.org
 - b. Green Shield: greenshieldcertified.org
 - c. GreenPro: npmaqualitypro.org
 - v. Landscape contractors should be trained in IPM from a recognized training program, such as:
 - a. ReScape California: rescapeca.org

C. Town Contract Requirements

Town contract documents shall require Town contractors to adhere to the Town's IPM Policy and, at a minimum:

1. Include the Town's IPM Policy in contractor service solicitations (e.g., RFPs) and contract specifications;

2. Give contract award preference to contractors who are IPM certified and possess a Qualified Applicators License or Certificate, as applicable;
3. Require the review of the Town's IPM Policy during contract kickoff project meetings and during annual IPM Policy trainings;
4. Require pesticide application pre-approval by the Public Works Superintendent;
5. Require monthly pesticide use records and an application summary report for NPDES annual reporting; and
6. Consider unauthorized pesticide applications a breach of contract and reportable to the appropriate State and County regulatory agencies.

VI. Pesticide Use

A. Pesticide Lists

1. Only pesticides on the Town's Preferred Pesticide List (Attachment A) shall be used on Town property;
2. Pesticides on the Town's Restricted Pesticide List (Attachment B) shall not be used without an Emergency Exemption; and
3. Pesticides banned in the United States by the US EPA shall not be used.

B. Emergency Exemption

An Emergency Exemption to use a Town Restricted Pesticide may be granted in writing by the Public Works Director for a pest outbreak that poses an immediate threat to public health or significant economic damage.

C. Pesticide Application

1. Pesticides will be applied as a last resort, in a manner that minimizes risk to human health, non-target organisms, water quality and the environment;
2. Pesticides may only be applied by certified applicators in accordance with federal, state and IPM Policy regulations and requirements;
3. Pesticides will only be used after careful consideration of non-chemical alternatives using establish IPM best practices;
4. The use of pesticides will require the submission of a Pesticide Recommendation Report for approval by the Town's Superintendent prior to application;
5. The submission of a Pesticide Use Report after application will be a condition of payment; and
6. Town employees will not apply purchased pesticides without approval from the Public Works Director.

D. Pesticide Use Noticing

1. The Town and its contractors will meet all recommended noticing required by the product manufacturer's label and pursuant to state and/or federal law;

2. Notices shall contain the product name and active ingredient, date of application, re-entry interval, target pest, signal word indicating toxicity category and Town contact number; and
 3. Public rights-of-way not reasonably accessed by the public may be exempt from noticing.
- E. Pesticide Record Keeping
1. The Town collects information about pesticide use trends on Town property and IPM actions taken to include in its NPDES annual report;
 2. Town contractors applying pesticides shall submit to the Town monthly pesticide use records and an annual summary report in the form and format required by the Town's Public Works Superintendent; and
 3. The annual report will include the following information, at a minimum:
 - i. Date and time of pesticide application or service;
 - ii. Site of the pesticide application;
 - iii. Name and EPA registration number of product applied;
 - iv. Active ingredient;
 - v. Targeted pest; and
 - vi. Amount of product applied; and
 - vii. Non-chemical IPM methods that were considered or tried.

VII. Outreach and Resources

A. Public Outreach

In accordance with its NPDES Permit, the Town shall:

1. Support countywide and regional efforts to educate residential and commercial pesticide users on goals and techniques of IPM and pesticide related water quality issues consistent with the municipal regional stormwater permit's requirements; and
2. Educate residents on IPM and IPM certified professional resources.

B. IPM Resources

The Town of Hillsborough recognizes that IPM is a complex and dynamic discipline. Regional, state and national agencies and organizations have developed IPM resources to assist small local agencies. A few of these agencies are:

1. University of California Agriculture and Natural Resources Statewide Integrated Pest Management Program ipm.ucanr.edu
2. County of Santa Clara Integrated Pest Management Program sccgov.org/sites/ipm/Pages/Home.aspx
3. San Francisco County Integrated Pest Management Program sfenvironment.org/pest-management-for-city-departments

VIII. Policy Update

The Town is required by MRP regulations to update its IPM Policy as needed².

² The Original Policy was finalized in April 2010 and thereafter revised October 2014 and June 2018.

Attachment A: Town of Hillsborough Approved Pesticides

The Town supports the use of least-toxic products to effectively treat pests and will consider new products and methods of pest control as they become available, are recommended by Town contracted IPM certified professionals and approved by regional agencies with highly regarded IPM policies and programs.

I. Approved Products List

- A. Borates, silicates and diatomaceous earth
- B. Soap-based products
- C. Minimum Risk Pesticides exempt from provisions of the Federal Insecticide, Fungicide and Rodenticide Act (40 CFR 152.25): epa.gov/minimum-risk-pesticides
- D. Organic Materials Review Institute Products List: www.omri.org/omri-lists
- E. U.S. Department of Agriculture’s National Organic Program National List: www.ams.usda.gov/rules-regulations/organic/national-list
- F. Cryogenics, electronic products, heat and light
- G. Biological controls
- H. Microbial pesticides
- I. Insect growth regulators
- J. Caulk and other physical barriers
- K. Containerized baits and traps

II. Town Preferred Glyphosate Alternatives Product List

Product	Active Ingredient	Rate (Mid)	Commercial Application	Category
Avenger	Limonene	0.2	Grass and Weeds	3-Caution
Axxe	Ammonium nonanoate	0.12	Grass and Weeds	2-Warning
Suppress	Caprylic acid, Capric acid	0.06	Grass and Weeds	2-Warning
Weed Slayer	Eugenol – Clove Oil Bacillus megatherium	1% to 3% Solution	Grass and Weeds	3-Caution

III. Town Recognized IPM Program Approved Products List

- A. **Santa Clara County** Integrated Pest Management List of Approved Pesticides: sccgov.org/sites/ipm
- B. **San Francisco County** Integrated Pest Management Reduced-Risk Pesticide List: sfenvironment.org/download/2017-reduced-risk-pesticide-list
- C. **Pesticide Research Institute** Pesticide Product Evaluator: pesticideresearch.com/site/evaluator

Attachment B: Town of Hillsborough Restricted and Banned Pesticide List

The following categories of high health-risk pest management products are not allowed to be used on Town property and will only be available for use through the Town's IPM Policy's Emergency Exemption process. Under no circumstances will the Town use pesticides banned by the US EPA.

I. California Proposition 65 Listed Materials

The list contains a wide range of naturally occurring and synthetic chemicals that are known to cause cancer or birth defects or other reproductive harm. These chemicals include additives or ingredients in pesticides, common household products, food, drugs, dyes or solvents. oehha.ca.gov/proposition-65/proposition-65-list.

II. Carcinogen

Any pesticide classified as a human carcinogen, probable human carcinogen or possible human carcinogen by the United States Environmental Protection Agency (epa.gov/pesticides) or the American Cancer Society (cancer.org).

III. Endocrine Disruptor

Any known endocrine disruptor listed by the United States Environmental Protection Agency Endocrine Disruptor website epa.gov/endocrine-disruption. Endocrine disruptors are chemicals that may interfere with the body's endocrine system and produce adverse developmental, reproductive, neurological and immune effects in both humans and wildlife.

IV. US EPA Toxicity Category I

Pesticides classified as Toxicity Category I by the United States Environmental Protection Agency.

1. **Toxicity Category I** is Highly toxic and Severely irritating,
2. **Toxicity Category II** is Moderately toxic and Moderately irritating,
3. **Toxicity Category III** is Slightly toxic and Slightly irritating,
4. **Toxicity Category IV** is Practically non-toxic and not an irritant.

V. Water Quality Toxicity

1. Pesticides considered toxic to water quality by NPDES, including:
 - i. Organophosphate products (e.g., diazinon or chlopyrifos)
 - ii. Carbamate products (e.g., carbaryl)
 - iii. Pyrethroid products
 - iv. Indoxacarb
 - v. Fipronil

- vi. Diuron
 - vii. Diamides
 - viii. Active Ingredient Chlorantranilprole
 - ix. Active Ingredient Cyantranilprole
2. Pesticides on the California Department of Pesticide Regulation Groundwater Protection List (www.cdpr.ca.gov).

VI. Foggers, Bombs, Fumigants

Any such fumigants containing pesticides identified by the State of California as potentially hazardous to human health.