



PUBLIC WORKS DEPARTMENT

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CITY COUNCIL INFORMATIONAL MEMORANDUM

Date: August 29, 2024

To: Cupertino City Council

From: Pamela Wu, City Manager, Chad Mosley, Director of Public Works, Ursula Syrova, Environmental Programs and Sustainability Manager

Re: Pesticide Use

Background:

At the March 19, City Council meeting, Councilmember Moore requested information on what fertilizers, pesticides, and herbicides the city uses and what sustainable alternatives exist.

Pesticides are applied as needed by City staff for maintenance of grounds, medians, shared-use fields, and trees. Additionally, a contractor applies pesticides for maintenance of the turf at Blackberry Farm golf course, and another contractor controls rodents at City of Cupertino facilities. All pesticide usage is tracked and reported to the County of Santa Clara Department of Agriculture and records are preserved. City staff also reports to the State Department of Pesticide Regulations for any school site applications.

Additionally, the City compiles all usage as supporting documentation for the City's annual Urban Runoff Management Program report submitted to the Regional Water Quality Control Board (RWQCB), a copy of which is available on the City's website at the link noted in the footnote.¹ The list of pesticides and usage by the City for the past 5 years is provided in Attachment A. The RWQCB only requires the City to report on use of certain specific pesticides that are considered a threat to water quality (organophosphates, pyrethroids, carbamates, fipronil, indoxacarb, diuron, and diamides) as part of the City's annual Urban Runoff Management Program report, none of which the City currently uses. In 2022-23, neonicotinoids were added to the list, and the City did use a very small quantity to control persistent tree pests that cause damage

¹ <https://www.cupertino.org/home/showpublisheddocument/32199/638521637903170000>

to trees and dripping of aphid-generated “honeydew” which can present a sidewalk hazard. City staff and contractors agree annually in writing to prioritize Integrated Pest Management (IPM) techniques by reviewing the Council IPM Policy (Attachment B). IPM calls for non-pesticide alternatives such as manual removal of weeds or plugging gaps where pests can enter buildings.

Each year staff and the contractors who apply pesticides are asked about the year’s activities and they explain techniques they used, challenges, and alternatives they tried. Staff are conscientious about the timing of applications and minimize the quantities used. Alternatives include applying mulch, manual removal of weeds, using string trimmers, and employing drip irrigation. Transitioning medians and other landscaping areas to make use of drought tolerant plants has also helped. Additionally, staff are made aware of relevant training in IPM and green gardening.

As part of the Santa Clara Valley Urban Runoff Pollution Program (SCVURPPP), the City also supports the Our Water Our World program, which offers information on less-toxic pest control alternatives to the larger community.² Environmental Programs staff maintain a web page about less-toxic pest control³ which features a list of questions and answers about pesticide application conducted in the city. The City also supports, through SCVURPPP, maintenance of a web site dedicated to green gardening called South Bay Green Gardens.⁴ That site provides a wealth of information on a variety of topics, including less-toxic pest management.

Sustainability Impact

Biodiversity and a healthy ecosystem are noted co-benefits of greenhouse gas reduction measures. Notably, from page 54 of the City’s Climate Action Plan 2.0, “Actions that improve the health of local ecosystems can also result in a variety of public benefits including reducing pollutants in local creeks and runoff to the bay, providing species habitat which supports a more biodiverse landscape, improving water and air quality, reducing local flood risk, and providing recreation benefits for the community enjoyment.”

Fiscal Impact

None

Prepared by: Ursula Syrova, Environmental Programs and Sustainability Manager

Reviewed by: Chad Mosley, Director of Public Works

Approved for Submission by: Pamela Wu, City Manager

² <https://ourwaterourworld.org/>

³ <https://www.cupertino.org/our-city/departments/environment-sustainability/water/less-toxic-pest-control>

⁴ <https://www.southbaygreengardens.org/>

Attachment:

A – FY 19-23 Pesticide Use

B – IPM Policy Acknowledgement

Attachment A - Pesticide Use

Active Ingredient	Target Pest	Application Location	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Acetamiprid	Aphids	Parks	528.6 fl oz	4.51 gal	4.71 gal	503.98 fl oz	17 fl oz
Acibenzolar-S-Methyl	Pink Snow Mold	Golf	0.566 fl oz	0	0	0	0
Alkylphenol Ethoxylate	Aphid	Trees	660.7 oz	4.616 gal	4.51 gal	397.70 fl oz	15.97 fl oz
Ammonium Nitrate	Weeds	Grounds	0	0	0	0	0
Azoxystrobin	Fungus	Vegetation	24 fl oz	0.651	0	0	0
Chlorothalonil	Pink Snow Mold	Golf	0	16.38	0.75 gal	0.7475 gal 4.68 lbs	0.75 gal
Cholecalciferol	Rats	Facilities	0	0	0.01613	0.00844 lbs	0.041 lbs
Difethialone*	Rats	Facilities	0.0002813	0.000375	0.00009	0	0
Dinotefuran	Aphids	Median	1.6	1.8	1.67	20.4 fl oz	0.6 fl oz
Fludioxonil	Pink Snow Mold	Golf	0	0	0.03 gal	0	0
Flumioxazin	Weeds	Grounds	0	0	21.56 fl oz	96.88 fl oz	436.15 fl oz
Flutolanil**	Greens	Golf	0	0	0	0	0
Fluxapyroxad	Anthraco- nose foliar disease	Golf	0	0	0.392	3.0093 fl oz	3.01 fl oz
Glufosinate-Ammonium	Weeds	Grounds	0	0	1.998 gal	3.41 gal	0.86 gal
Glyphosate***	Weeds	Various	24.37 gal	10.711 gal	13.94 gal	18.48 gal	13.98 gal
Iprodione	Greens	Golf	1.165 gal	0	0.29 gal	0	0

Iron Hedta	Weeds	Parks	0	0	0	0	0
Isoxaben****	Weeds	Medians	13.45	0.5238 gal 2.25 lbs	2.023	248.84 fl oz	90.9 fl oz
Halosulfuron (Methyl-5-3-chloro-1-methyl-1-H-pyrazole-4-carboxylate)	Nutsedge Weeds	Median	0	0	0	0	0
Napthaleneacetic Acid	Weeds		0	0	0	0	0
Oryzalin (Surflan)	Weeds	Medians	245.2 fl oz	2.422 gal	0	243.61 fl oz	0
PCNB	Fungus	Golf	0	31.5	0	9	0
Pendimethalin	Weeds	Parks	11.2	1.6	0.8	1.6	1.2
Penoxsulam	Weeds	Golf	1.178 fl oz	0.184 gal	0	0	0
Polyalkyleneoxide	Surfactant	10362 Bret	0	0	0	0	0
Potassium Phosphite	Fungus	Golf	0	0	0	0	0
Propiconazole	Pink Snow Mold	Golf	0	2.604	0.12 gal	0.12 gal	0.12 gal
Pyraclostrobin	Fungus	Golf	9.79 fl oz	0	0.78	6.0018 fl oz 0.342 lbs	6 fl oz
Tebuconazole	Fungus	Parks	0	0	0	0	0
Thiophanate-Methyl	Fire Blight	Pear Trees	0.625 gal	0	1.55 gal	0	0
Triclopyr	Weeds	Facilities	879.48 fl oz	1.007 gal	2.51 gal	97.76 fl oz	5.48 gal
Triticonazole	Winter Fungus	Golf	0	0	0	0.387	0

Trends in Quantities and Types of Pesticides Used

Reported as pounds unless otherwise noted

* Use of rodenticide was halted at the Senior Center in 2017-18. Difethialone is used with a risk mitigation measure of putting baits into tamper resistant boxes to prevent poisoning of non-targeted animals (e.g. dogs). It is used in tiny quantities and is placed in a bait station and on a concrete block to elevate it from rain and water.

** The City does not use organophosphates, pyrethroids, or carbaryl pesticides and discontinued the use of fipronil in FY 2010-2011. However, Flutolanil (Prostar) (Not on SF List) was used in FY 13-14 at the rate of 2.2 ounces per thousand square feet for the cure of

Waitea Brown Ring Patch. Flutolanil had been used in the past, and at that time it was on the SF list of approved pesticides. Two applications were made on the golf course before realizing that the chemical is not on the SF list.

*** Glyphosate is popular because the chemical breaks down fast, but the surfactant used is toxic to aquatic wildlife, so staff does not use it near the creeks. "Cut and Dab" on cut stems can be used judiciously with but no spraying near the creeks. Glyphosate is on the San Francisco Reduced-Risk Pesticide List for City-Owned Properties.

**** The Grounds Maintenance Department uses isoxaben and oryzalin as pre-emergents. The City's Pest Control Advisor selected pre-emergents to keep the weeds from germinating instead of spraying glyphosate (post-emergent) in larger quantities to kill the weeds after they emerge. The two active ingredients, particularly when combined, cover a very broad spectrum of weeds therefore requiring a smaller amount of glyphosate than would otherwise be needed. To reduce pesticide use due to over watering, the City installed drip systems throughout all City property.

**CUPERTINO'S POLICY TO REQUIRE
AN INTEGRATED PEST MANAGEMENT APPROACH
TO PEST CONTROL AT ALL CITY-MAINTAINED FACILITIES AND PROPERTY**

POLICY STATEMENT

The City of Cupertino will carry out its pest management operations, at city-owned facilities, and on property where the city is responsible to provide facility and landscape maintenance, using reduced-risk Integrated Pest Management (IPM) techniques.

The city, recognizing that some pesticides may be potentially hazardous to human health and the environment, shall give preference to reasonably available non-pesticide alternatives, and reduced-risk pesticides, when performing pest control activities.

Departments that apply pesticides will follow an IPM plan whose goal is to ensure the long-term prevention or suppression of pest problems, while reducing or eliminating the need for chemical pest controls (to the maximum extent feasible), with minimum negative impact on human health, non-target organisms, and the environment.

The IPM plan includes pest-specific and site-specific standard operating procedures (describing the IPM approach used to control common pest problems) and monthly pesticide use summaries. The city prepares a report each year summarizing and evaluating the pest control activities performed by city staff and contractors.

The IPM Plan also includes an outreach component to residential and commercial pesticide users, and mechanisms to discourage pesticide use at new development sites.

No products containing Clopyralid, Diazinon, Chlorpyrifos (Dursban), Chloradane, DDT, Dieldrin or other organophosphates may be used on city property. Fipronil and pyrethroids including, but not limited to Deltamethrin and Bifenthrin, may be used by city staff or a city contractor on city property or property maintained by the city only after all other IPM methods have been tried and with the approval of the designated city staff person. As of July 2010, these chemicals are not used at city-maintained facilities or on city property.

City staff are to report pest control problems to the Public Works Facilities Supervisor or to the Recreation Supervisor at Blackberry Farm. No unauthorized city staff can purchase pesticides for use at work.

Contracting Pesticide Applicators for Cupertino will sign this form to acknowledge that they are aware of the city's Integrated Pest Management policy, the city's IPM Best Management Practices (BMPs) and the city's Standard Operating Procedures (SOPs) or IPM Plan for the control of specific pests.

Contracting Pesticide Applicator Printed Name

Date

Contracting Pesticide Applicator Signature