Integrated Pest Management Plan

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1.0 Integrated Pest Management Plan (IPMP)

The Integrated Pest Management Plan (IPMP) is intended to provide a basis for a pest management program that will protect public health, as well as water quality, and non-target plants and animals. The goal of the CITY's IPMP is to utilize the most environmentally sound approaches to pest management, and to reduce the volume and toxicity of chemical pest control treatments.

The Phase II Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (hereafter MS4), requires the CITY to implement a landscape design and maintenance program to reduce the amount of water and pesticides used during CITY operations and activities. In accordance with the MS4, the CITY must evaluate pesticide use and application activities performed and then implement practices that reduce the discharge of pesticides. By implementing the IPMP the CITY will comply with the pesticide-related landscape management measures.

This policy shall be adopted/amended by Resolution, posted in its current form on the CITY's website, and the Ordinances regulating this plan are contained in the following Fort Bragg Municipal Code Sections:

- Chapter 6.10 Weed Abatement Procedures
- Chapter 6.11 Integrated Pest Management
- Coastal Land Use And Development Code Chapter 17.34 Landscaping Standards
- Inland Land Use And Development Code Chapter 18.34 Landscaping Standards

A. Policy

All pest management on CITY property will adhere to industry best practices, reduce or eliminate pesticide applications to the maximum extent feasible, and include all reasonable measures to protect human and environmental health. All persons acting on the CITY's behalf, shall be familiar with the content and principles of this policy, receive training, and provide accurate records in accordance with this Integrated Pest Management Plan.

- 1. Departments performing pest management will comply with the CITY's IPMP. This policy will apply to all property, rights of way, or easements owned, by the CITY.
- 2. The CITY encourages residents to utilize this policy in application of pesticides, it does not however regulate pesticide use on private properties. Informational resources can be found in the Appendix of this IPMP.
- 3. Departments will require contractors providing pest management services to the CITY to comply with the CITY's IPMP. All pesticide application on CITY property performed by contractors shall be done in accordance with this policy. Contractor requirements are further described Section 3.0 Contracts of this IPMP.
- No pesticides or fertilizers shall be applied during irrigation or within 48 hours of predicted rainfall with greater than 50% probability as predicted by National Oceanic and Atmospheric Administration (NOAA).
- 5. The CITY will annually maintain a list of reduced-risk pesticides, using the pesticide risk assessment guidelines employed by the City and County of San Francisco.
- An exemption must be applied for and granted prior to use of any pesticide not listed on the Reduced-Risk Pesticide List, the exemption process requires well documented justification for the variance from pesticide use restrictions and limitations.
- 7. The CITY's IPMP will include the following components:
 - a) Reduce to the maximum extent practicable the use of pesticides.
 - b) Consider taking a "no-action" approach in addressing certain pest control issues.
 - c) Transition parks and greenbelts to "green" least-toxic pest management.
 - d) Review and consider available non-chemical options before using a chemical pesticide.
 - e) Identify pests and least toxic methods to control pests.

- f) Identify, evaluate, and minimize or eliminate conditions that encourage pest problems.
- g) Comply with all applicable state and federal regulations, including pesticide use and reporting.
- h) Provide public access to all IPMP information and records.
- i) Conduct decision-making based on the best available science and data.
- j) Provide residents and pest control operator's information on less toxic methods of pest control.

B. IPMP Goals

IPMP goals regarding pesticide selection and use include:

- 1. Use pesticides only when necessary and select a pesticide that is both effective and least toxic.
- 2. Designate 25 ft. buffers around playgrounds and picnic table areas on CITY property as pesticide-free zones.
- 3. No use on plants with edible berries when ripe fruits are present.
- 4. Educate and train CITY staff in the IPMP practices.
- 5. Incorporate outreach to schools, Bee City, and local garden clubs and organizations, to encourage participation and contribution to updates of this plan.
- 6. The City's land use code sections 17.34 and 18.34 describe the CITY's landscape maintenance and design program. It is the goal of the City to also incorporate the following techniques when feasible and appropriate:
 - a) Identify pollution prevention and source control opportunities;
 - b) Collect and properly dispose of unused pesticides, herbicides, and fertilizers;
 - c) Promote soil microbial health through the use of compost, compost tea, or inoculation;
 - d) Use native and/or climate appropriate plants to reduce the amount of water, pesticides and fertilizers used;
 - e) Limit or replace pesticide use with alternatives such as conducting manual weed and insect removal;
 - f) Minimize irrigation run-off by using best management;
 - g) Manage mowing of grass to allow for greater pollutant removal, but not jeopardizing public safety.

2.0 Pest Control As-needed

CITY departments and offices requiring pest control on an as-needed basis are to adhere the Best Management Practices (BMP) described in this IPMP.

A. Guidelines for Pest Treatment

If it is determined that treatment is needed, the following criteria are to be used in determining the appropriate treatment strategy:

- 1. Least-disruptive of natural controls;
- 2. Least-hazardous to human health;
- 3. Least-toxic to non-target organisms;
- 4. Protective of wildlife and the native habitat;

- 5. Least-damaging to the general environment;
- 6. Cultural, biological, and mechanical solutions have been considered and evaluated;
- 7. Prior treatments used on site to control the pest and an evaluation of the success of that approach;
- 8. Most likely to produce a permanent reduction in the environment's ability to support target pests;
- 9. Cost effectiveness in the short and long term.

B. Guidelines for Pesticide Selection

1. Development of Reduced-Risk List of Pesticides allowed for Use on CITY Property

It is a goal of CITY to minimize the use of pesticides by giving preference to eco-exempt products and those approved by the Organic Materials Research Institute (OMRI) or by the National Organic Program for use in organic systems as available and effective.

Pesticides should be the last resort, when all other tactics have failed (i.e., sanitation improvements, pest prevention, non-chemical management measures). The use of pesticides shall be limited to the products listed on the current Reduced-Risk pesticide list. Table 1 shows the link for the Reduced-Risk pesticide:

https://city.fortbragg.com/DocumentCenter/View/11682/Table-1--Reduced-Risk-Pesticide-List

2. Chemical Prohibitions for the Pesticide List

No pesticides shall be used on CITY property unless listed on the Reduced-Risk Pesticide List unless a Use Exemption is granted by the Public Works Director. The following list of pesticides shown on Table 2 are explicitly banned from use on CITY property.

Tab	Table 2: Chemicals Banned for Use on CITY Property			
No	Chemical Group	Chemical Names		
1	Organochlorines	DDT,DDD, Dicofol, Eldrin, Dieldrin, Chlorobenziate, Lindane, BHC, Methoxychloro Aldrin, Chlordane, Heptaclor, Endosufan, Isodrin, Isobenzan, Toxaphene, Chloro propylate		
2	Organophosphates	Dimefox, Mipafox, Methyl Parathion, Ronnel, enitrothion, Bidrin, Phorate, Fenthion, caumphos, Abate, Dichlorovas, Diptrex, Phosphomidon, Demetox, Oxydemeton-methyl, Malathion, Dimethoate, Trichlorofan		
3	Carbamates	Methyl Carbaryl, Carbanolate, Prupoxur, Dimethan, Dimetilan, Isolan, Carbofuran, Pyrolan, Aminocarb, Aldicarb Thio Vernolate, Pebulate, Diallate, Monilate, Butylate, Cycloate, Trillate, Thiourea Dithio Methan, Thiram, Ferban, Amoban, Naban, Zineb, Maneb, Ziram Polyran, Dithane M- 45		
4	Neonicotinoid	Acetamiprid, Clothianidin, Dinotefuran, Imidacloprid, Nitenpyram, Thiocloprid, Thiamethoxam		
5	Glycine	Glyphosate		

Table 2 lists out banned chemicals by their Classification of pesticides based on their chemical nature. This table was last update 9/12/2019 and the date of updated should be noted at each subsequent change to this information.

Both Table 1 and Table 2 once approved shall be posted in a conspicuous place on the CITY's website where it is easily accessible by to the public.

3. Limited Use Exemptions

A CITY department may apply an emergency exemption to the pesticide prohibition in the event that an emergency pest outbreak poses an immediate threat to public health, will result in detriment to the environmental or an environmentally sensitive habitat area

(ESHA), or significant economic damage will result from failure to use a pesticide prohibited pursuant to [Proposed] Section 6.11.020.

CITY departments responsible for performing pest management shall submit a request for an exemption (application in appendix) to the Public Works Director (Director) or Designee to use a pesticide that is prohibited per this IPMP. The Director may approve a limited use exemption request if the exemption requester demonstrates that:

- a) A compelling need to use the pesticide, such as public health or safety, substantial economic, or environmental detriment;
- b) A complete investigation of all available options found the use of pesticides to be less damaging than the threat posed by the pest;
- c) The plan demonstrates a reduced need for future pesticide use; and
- d) It is the requester's intent to use the material for a limited period of time.

If an exemption is granted, the Department responsible for performing pest management shall notify the Public in the manner prescribed in the Notification Section of this Plan.

Example exemptions: Fire threats, spread of communicable diseases by pests including rats and mosquitos, and detriment to ESHA.

3.0 CONTRACTS, NOTIFICATION, AND RECORDKEEPING

A. Contracts

All contractors who manage pests on CITY owned, property, rights of way, or easements shall be required to adhere to the guidelines established in the CITY's IPMP. On City rights of way and easements, underlying property owners are excluded from this requirement.

Contractors are required to maintain records of pest control activities, and submit a summary of activities to the department upon completion of the job. Contractors providing regular and ongoing service shall submit summaries to the department on an annual basis. Contractors are required to comply with the notification requirements as listed in this IPMP.

B. Notifications

When a limited use exemption is granted for the application of a pesticide not listed in the Reduced-Risk Pesticide List in right-of-way locations accessible by the public, the CITY shall provide the public with notifications using the City's web-based notification list service.

- Individuals wishing to receive notice of pesticide application may sign up for these notifications using the Notify-Me Portal and registering for the Integrated Pest Management List. {This list serve will be created upon approved of this IPMP – INSERT LINK}
- 2. Notices will be distributed electronically 24 hours in advance of a pesticide application (when possible) or as soon thereafter as economically feasible.

3. The Notice will contain the location of the application, the name and active ingredient(s) of the pesticide product, the target pest, signal word indicating the toxicity category of the pesticide product, and the name and contact number for the CITY department responsible for the application.

C. Recordkeeping

The CITY's IPMP is based on best management practices, careful and efficient inspection and monitoring of pest problems, as well as the maintenance of records will be completed by designated CITY personnel who are knowledgeable in IPMP methods.

All records and information concerning the CITY IPMP will be made available to employees and the public upon request in accordance with all applicable state and CITY laws governing public access to information.

The Public Works Department is responsible for IPMP implementation and shall maintain records of pest related treatments. These records shall be maintained per the CITY and state records retention policies and/or law.

<u>Contractors shall</u>: Maintain application records and treatment information as outlined in Section 3.0 A and are to provide this information to the Project Manager upon completion of treatment so the department can fulfill reporting obligations.

<u>The Engineering Department</u>: Maintain all necessary records in order to prepare an annual report that includes a review and summary of the CITY's pesticide use, cultural practices and non-chemical pest control activities, exemptions granted, training offered, any proposed modifications to the CITY's pesticide list, and any suggestions for amendments or resources needed for effective implementation of the IPMP.

4.0 DEFINITIONS

"Best Management Practices" or "BMP" means actions based on current science and technology that have been proven to be effective in the control and management of the site or pests to prevent or reduce the incidence of pest problems, with careful consideration given to protect public health and safety, wildlife and the environment.

"CITY Property" means property rights of way, or easements owned, by the CITY.

"Integrated Pest Management Plan" or "IPMP" means a decision-making and recordkeeping process for managing pests that uses monitoring to determine pest injury levels and combines biological, cultural, mechanical, physical, and chemical tools and other management practices to control pests in a safe, cost effective, and environmentally sound manner that contributes to the protection of public health and sustainability. This method uses extensive knowledge about pests, such as infestations, thresholds, life histories, environmental requirements, and natural enemies to complement and facilitate biological and other natural control of pests. The method involves the use of non-chemical pest control methods and the careful use of least-toxic chemical methods when non-chemical methods have been exhausted or are not feasible.

"Invasive species" are non-native organisms whose introduction causes or is likely to cause economic or environmental harm or harm to human, animal, or plant health (Executive Order No. 13751, 2016).

"Native nuisance species" are native species that cause harm to ecosystems or human health.

"Non-native species" are defined as species found outside of their natural range. It is important to emphasize that not all non-native species are invasive. Likewise, there may be native species that cause harm to ecosystems or human health (often referred to as native nuisance species).

"Pest" means any pest as defined in Section 12754.5 of Chapter 2 of Division 7 of the California Food and Agricultural Code. Pest includes any of the following that is or is liable to become, dangerous or detrimental to the public health or the agricultural or nonagricultural environment of the state:

(1) Any insect, predatory animal, rodent, nematode or weed;

(2) Any form of terrestrial, aquatic, or aerial plant or animal, virus, fungus, bacteria or other microorganism (except viruses, fungi, bacteria or other microorganisms on or in living man or other living animals);

(3) Anything that the Secretary of the California Department of Food and Agriculture or the Director of Pesticide Regulation for the California Department of Food and Agriculture by regulation declares to be a pest.

"Pest control" means the use or application of any pesticide. It also means the use of any substance, method, or device to do any of the following:

(a) Control pests.

(b) Prevent, destroy, repel, mitigate, or correct any pest infestation or disorder of plants.(c) Inhibit, regulate, stimulate, or otherwise alter plant growth by direct application to plants.

(Enacted by Stats. 1967, Ch. 15.)

"Pesticide" means any substance, or mixture of substances, that is intended to be used for controlling, destroying, repelling, or mitigating any pest or organism, excluding antimicrobial pesticide(s) as defined by the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sec. 136(mm)).

"Phase II Permit" means the State Water Resources Control Board's Phase II Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) General Permit, Order No. 2013-0001, adopted February 5, 2013.

5.0 APPENDIX

A. Resources

- California Invasive Plant Council (Cal-IPC) Inventory which categorizes Plants that threaten California's natural areas and includes; species ecological impact, ecosystems or communities invaded, invasive potential, documentation level, and distribution. <u>https://www.cal-ipc.org/plants/inventory/</u>
- Fact Sheets for home owners on managing common pest problems, see <u>http://ourwaterourworld.org/fact-sheets</u>
- National Institute of Health (NIH) Pesticide groups and Chemical List <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5464684/</u>
- Pest Prevention by Design Guidelines by San Francisco Department of the Environment. <u>https://sfenvironment.org/download/pest-prevention-by-design-guidelines</u>
- San Francisco Reduced-Risk Pesticide List for City-Owned Properties Approved Sept. 25, 2018: <u>https://sfenvironment.org/sites/default/files/fliers/files/sfe_th_reduced_risk_pestici</u> de_list_092518.pdf
- University of California Agriculture and Natural Resources Statewide Integrated Pest Management Program: <u>http://ipm.ucanr.edu/PMG/PESTNOTES/index.html</u>
- USDA's California invasive & noxious plant list: <u>https://plants.usda.gov/java/noxious?rptType=State&statefips=06</u>

B. Forms {These forms to be completed upon approval of IPMP} Exemption Form

Training Log

Pesticide Application Log