



Integrated Pest Management Plan

Effective Date: March 2nd, 2016

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1. POLICY

McKinleyville Community Services District will utilize the most environmentally sound approaches to pest management, eliminate where feasible the use of pesticides to minimize environmental and health impacts of pest and vegetation management in all cases. To accomplish this, staff will utilize physical, mechanical, cultural, biological, and educational tactics as primary controls.

Pests will be controlled to preserve the integrity of facilities, infrastructure, and public health. Reduced-risk chemical controls will be used when necessary after primary control solutions have been exhausted. In the event reduced-risk chemical controls are not effective Board action will be required before further treatment. Pesticides will not be used to control pests for aesthetic reasons alone.

2. SCOPE & PURPOSE

This Integrated Pest Management (IPM) Plan shall apply to all pest control activities and pesticide use in buildings and related facilities; grounds and open space; and other property owned or managed by the McKinleyville Community Services District (MCSD). Employees, lessees and contractors will receive a copy of and are required to meet the Plan standards and such other appropriate contract language as determined by the General Manager.

This plan is intended to provide procedural guidelines for implementation as a basis for pest and vegetation management that will protect public health, the environment (see Section 3 for definition) and the aesthetic value of MCSD's facilities. This plan supersedes all previous plans covering the same or similar topics.

3. DEFINITIONS

A. Integrated Pest Management: A decision making process which selects, integrates, and implements pest control strategies to prevent or control pest populations. Integrated Pest Management uses a "whole systems approach", looking at the target species as it relates to the entire ecosystem. The following are considered in choosing control strategies; minimal impacts to human health, the environment and non-target organisms.

B. Pest: Any form of plant or animal life which the Administrator of the United States Environmental Protection Agency (US EPA) declares to be a pest pursuant to Section 25(c)(1) of the Federal Insecticide, Fungicide and Rodenticide Act [7 USC § 136w(c)(1)].

C. Pesticide: Any substance or mixture of substances intended for destroying or repelling any pest. This includes without limitation fungicides, insecticides, nematicides, herbicides, and rodenticides and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

The following products are not pesticides:

1. Deodorizers, bleaching agents, disinfectants and substances for which no pesticidal claim is made in the sale or distribution thereof; and
2. Fertilizers and plant nutrients.

D. Reasonable Alternative: A feasible option for pest control which takes into account the economic, social, and environmental costs and benefits of the proposed choices.

E. Emergency: A Pest outbreak that poses and immediate threat to public health or will cause significant economic or environmental damage.

F. Environment: The conditions that surround someone or something: the conditions and influences that affect the growth, health, progress, etc., of someone or something.

G. Sensitive Areas: Nearby a school, playground, or other area of concentrated use by children; or where runoff into nearby streams, wetlands, or ponds is likely.

4. MCSD IPM COORDINATOR

The General Manager shall designate an MCSD staff member as the IPM Coordinator, whose responsibilities shall include, but are not limited to, the following items:

- Coordination with MCSD departments, contractors and lessees on weed and pest control issues
- Publication of the annual IPM report
- Coordination of the Interdepartmental IPM Review Group
- Coordination of the implementation of the IPM in accordance with state law
- Recommendations on IPM strategies
- Assist MCSD departments with staff training needs
- Outreach to citizens regarding IPM

A. Annual IPM Report

The MCSD IPM Coordinator will compile data from all participating MCSD departments and submit an annual report at the January Board Meeting to the MCSD General Manager and Board of Directors. The report will detail the previous year's IPM efforts and shall contain information listed in Section 5, Departmental Obligations. Each department using pest control methods shall submit their information to the MCSD IPM Coordinator. The report will include a review of new IPM strategies as well as trends in IPM techniques over time.

B. Interdepartmental IPM Review Group

The General Manager may designate at least one staff member from each department as a representative to the Interdepartmental IPM Review Group. This group will be coordinated by the MCSD IPM Coordinator and will include designated MCSD staff. The Group shall meet at least semiannually and meetings will include development of annual MCSD IPM goals, review and evaluation of the plan, as well as opportunities for information exchange, education and cooperation. The Interdepartmental IPM Review Group shall also review interdepartmental issues and make Plan recommendations to the General Manager prior to presenting to the Board that advance the objectives of the IPM Plan and reduce reliance on chemical pest control.

5. DEPARTMENTAL OBLIGATIONS

The following departments conduct pest control operations that use or potentially use pesticides:

- Parks & Recreation Department
- Operations Department
- Support Department

A. Integrated Pest Management Plan

Each of these departments and any others using pest control methods in the future, shall use the guidance provided by this Plan. This plan shall be submitted to the MCSD IPM Coordinator by November 1. The plan will be reviewed and updated as necessary, to incorporate adaptive management changes consistent with the MCSD IPM Plan and updated at least every five years.

B. Record-keeping and Evaluation

Each department shall keep accurate records of all Integrated Pest Management treatments used and the results (see Appendix A: MCSD IPM Treatment Tracking Form). Information on all treatments (including non-chemical ones) shall include how, when, where and why the treatment was applied and the name of the applicator. This information will be available to the MCSD IPM Coordinator and will be the basis for the Annual IPM Report. It should also be available for review at the Interdepartmental IPM Review Group meetings. The MCSD IPM Coordinator will review pest management treatments with MCSD departments to evaluate the successes and failures of the IPM program, and to plan more efficient and effective pest management strategies.

The following information shall be maintained:

1. Target pest
2. Pest population levels or injury thresholds for treatment
3. Treatment selection criteria with final treatment decision (Section 6. C.)
4. Area treated (including type of location and size of area)
5. Pesticide (including product trade name, active ingredient and EPA toxicity category)
6. Quantity of product used
7. Treatment method used (i.e. bait, injection)
8. Location of application, time, date and type of noticing provided (physical sign, web posting, newspaper, etc.).
9. Time and date of pesticide application
10. Name(s) and license number(s) of Pesticide Applicator(s)
11. Name of the department contact authorizing work
12. Safety Data Sheets (SDS) and labels for all pesticides used

Application records shall be made available to the public upon request in accordance with MCSD's Records Retention Policy and all applicable state laws governing public access to information.

C. Contractor Notification

Departments bidding out contractual work for pest management must inform all bidders that MCSD has an IPM Plan, include its guidelines in bid specifics, and provide a written copy of the IPM Plan. Contractors are encouraged to submit bids that include nonchemical pest control methods.

6. INTEGRATED PEST MANAGEMENT (IPM) PROCEDURE

MCS D assumes that all pesticides are *potentially* hazardous to human and environmental health. Therefore, reasonable non-pesticide alternatives shall be given preference over chemical controls by following the IPM procedure. MCS D staff will evaluate alternatives to chemical treatment including the cost-effectiveness of the treatments. When chemical application is being considered, the IPM procedure outlined below shall be followed.

A. Initial Data Collection, Mapping and Monitoring

Each department considering pest control measures shall collect baseline data on the pest ecosystem(s) to determine pest population(s) occurrence, size, density and presence of any natural enemy population(s); gather information on pest biology and different control techniques available; and document sensitive areas and conditions that may limit control options. Data shall be collected in a standardized manner that is repeatable. This information may be included in departmental IPM plans.

Ranking, inventory, mapping, monitoring and evaluation are methods used for determining pest management priorities. Maps and inventories depict infestations in terms of pest species, size, location and threats to resources. Departments shall monitor infestations or pest populations and evaluate treatments over time to assess the effectiveness of various treatment strategies and their effects on target and non-target organisms.

All monitoring methods and data shall be specified in the departmental IPM plan, systematically recorded, and available for review at the Interdepartmental IPM Review Group meetings. Departments shall coordinate and utilize standardized pest mapping protocols.

B. Establishing Threshold Levels

To determine if treatment is warranted, an acceptable threshold level of treatment for each target pest and site should be established. The IPM Coordinator will contain the threshold levels for common pests, determined by individual work groups. In some instances, treatment may be required by federal, state or county laws. The assessment will be based on the following:

1. The tolerable level of environmental, aesthetic and economic damage as a result of the pest population(s) and the tolerable level of risk to human health as a result of the pest population(s);

OR

2. The size, density or growth rate of the pest population that must be present to cause unacceptable environmental, aesthetic and/or economic damage; and the size, density and type of pest population that must be present to create a human health risk.

C. Treatment Selection Criteria

Upon determining that treatment is necessary, the following criteria in descending order shall be used to help select the appropriate IPM treatment strategy:

1. Least hazardous to environment, non-target organisms and human health
2. Cost-effectiveness in the short and long-term
3. Least disruptive of natural controls
4. Most likely to produce a permanent reduction in the environment's ability to support target pests

D. Treatment Strategies

Each department in consultation with the MCSD IPM Coordinator shall make its own determination about appropriate and effective treatments, based on site-specific requirements. Commitment to the most environmentally sound approach is expected, with non-chemical methods considered first.

Prevention, cultural control, mechanical control, biological control and chemical control are the techniques used in integrated pest management. In general, a combination of treatments may be more effective than a single approach. Departments are encouraged to seek out and experiment with innovative IPM treatments (and combinations of treatments) and share this information at the Interdepartmental IPM Review Group meetings. The following treatments are listed in the order in which they should be executed:

D.1 Prevention – This is the most effective pest management strategy. By reducing the capacity of the ecosystem to support target pest populations through design and appropriate management, the opportunities for pest establishment can be reduced or eliminated.

- a. Use strategies that reduce the preferred harborage, food, water or other essential requirements of pests.
- b. Use weed-free materials for trail construction and maintenance.
- c. Use landscape and structural design that is appropriate to the specific habitat, climate and maintenance the area will receive.
- d. When designing projects, consider the potential impacts of pests and mitigate through the use of appropriate landscape design keeping in mind that initial costs of the project may be high, but can reduce long term maintenance costs (water requirements, weed barriers, etc)

D.2 Cultural – Cultural control is the use of management activities that prevent pests from developing due to enhancement of desired conditions. Specific examples are the following:

- a. Selection and placement of materials that provide life-support mechanisms for pest enemies and competitors.
- b. Modification of pest habitat by reducing pest harborage, food supply and other life support requirements.
- c. Vegetation management including irrigation, mulching, fertilization, aeration, seeding, pruning and thinning.
- d. Waste management and proper food storage.
- e. Barriers and traps.
- f. Heat, cold, humidity, desiccation or light applied to affected regions.
- g. Prescribed grazing.

D.3 Mechanical – Mechanical control is accomplished by using physical methods or mechanical equipment to control pest infestations.

- a. Mowing or weed-whipping
- b. Burning
- c. Hand-pulling of weeds
- d. Hand-removal of insect egg masses

D.4 Biological – Biological controls include the introduction or enhancement of natural enemy populations to target pests. Introduction of non-indigenous organisms has an associated risk factor and should be thoroughly evaluated prior to implementation due to new species may be impossible to completely remove at a later date. Biological methods include:

D.5 Chemical – Chemical control of pests is accomplished by using chemical compounds registered as pesticides. All pesticides shall be assumed to be *potentially* hazardous to human and environmental health.

- a. The type, methods and timing of chemical treatment shall be determined **after** consideration has been given to protection of public health and the environment.
- b. Initial review of potential chemicals shall begin with the least toxic compounds, i.e. chemicals in EPA Toxicity Categories III and IV. The use of compounds in EPA Toxicity Categories I and II shall be avoided if possible or used in situations where exposure to the active ingredient is limited (i.e. baits or soil/trunk injections).
- c. If, after a thorough evaluation of alternatives, the only effective or practical chemical control is an EPA Toxicity Category I or II compound, the MCSD General Manager, and, if practical, IPM Coordinator will review the decision-making process and make a recommendation to the Board of Directors for approval. This will be done on a case by case basis for specific pest treatments. The decision-making process and lack of alternatives shall be documented.
- d. Staff will review the information available on potential chemicals for persistence in the environment and the potential impacts from persistence. These factors will be considered along with the potential for more frequent application of chemicals that have lower persistence in the environment.
- e. If chemical treatment is warranted in a riparian area, applications will generally be plant specific and limited to wick applications. If broader applications are needed, the MCSD IPM coordinator shall confer with the Interdepartmental IPM Review Group, to review the decision-making process and make a recommendation to the General Manager for approval. If EPA Toxicity Categories I or II are necessary, Board approval will be required. This will be done on a case by case basis.
- f. Potential chemical approaches
 1. Pheromones and other attractants to confuse pests and/or act as bait
 2. insecticidal soaps
 3. juvenile hormones that arrest pest development
 4. repellants
 5. allelopathins
 6. sterilants or contraceptives to reduce breeding
 7. contact, stomach or other poisons
 8. fumigants
 9. combinations of above (baits with poisons)
 10. herbicides, insecticides

- g. All pesticides All pesticides shall be applied in conformance with label specifications and all applicable federal, state and municipal laws, regulations and ordinances.
- h. All pesticide applications shall comply with the appropriate pre and post notification requirements. For all MCSD pesticide applications, notification will be posted at least 24 hours in advance, unless there is an extreme public safety concern. This includes soil and trunk injections, spot spraying, hand-wicking and broadcast spraying on all MCSD lands or property open to the public.

E. Education

Education is a critical component of an IPM program. The MCSD IPM Coordinator will include IPM information on the MCSD website. Information will include the Annual IPM Report and other pertinent material. Individual departments and work groups may conduct additional specific educational activities.

7. CONTRACTOR/LESSEE RESPONSIBILITIES & REQUIREMENTS

All contractors working for MCSD are required to abide by MCSD's IPM Plan. The contractor will return a signed statement to the appropriate Department Head certifying they have read and understand the Plan prior to any work being done for MCSD (See Appendix B: Acknowledgement of Receipt of the MCSD Integrated Pest Management Plan). The contractor shall maintain records as listed in Section 5, B.

MCSD may periodically enter into contracts that authorize pest management, such as for building maintenance, project construction and maintenance, and weed and insect control.

When MCSD signs a new contract or extends the term of an existing contract with a contractor or lessee that may include or authorize the application of pesticides, the department shall review its IPM plan with the MCSD IPM Coordinator and update the plan to include the pesticide usage by the contractor or lessee.

Contractors/lessees who apply pesticides on MCSD owned or managed property shall submit a procedure to the appropriate MCSD department and the MCSD IPM Coordinator if the department has not provided a procedure. Their procedure shall include the following:

- Information addressing all the elements listed in Section 6 of the IPM
- Types and estimated rates, to the extent possible, of the pesticides that the contractor may need to apply to MCSD property during its contract
- An outline of the actions the contractor will take to meet the MCSD IPM Plan
- The primary IPM contact for the contractor

Contractors/lessees will provide background information on the decision-making process for treatment methods to MCSD upon request. The department and MCSD IPM Coordinator shall approve the plan before any chemical applications are made. Contractors/lessees shall notify their departmental contact when any biological or chemical treatments are conducted. The contractors/lessees shall comply with appropriate pre and post notification requirements, according to MCSD IPM and relevant internal MCSD protocols.

8. INTERPRETATION

Employees or contractors who have questions concerning possible conflict between their interests and those of MCSD, or the interpretation and application of any of these rules, should direct their inquiries to their Department Director. The Department Director shall refer the matter to the General Manager for final resolution.

9. MODIFICATIONS/CHANGES

Any modification to this Plan may be granted only by the Board of Directors after considering the recommendation of the General Manager. This Plan may be reviewed and changed at any time.

APPENDIX A: MCSD IPM TREATMENT TRACKING FORM

MCSD IPM Treatment Tracking Form

Location (Map on Back) _____

Department: Operations Parks & Recreation Support Services Contractor/Lesseees

Authorized by IPM Coordinator: Yes No

Professional Pesticide Applicator Used: Yes No If Yes, Applicator's Name and Licence # _____

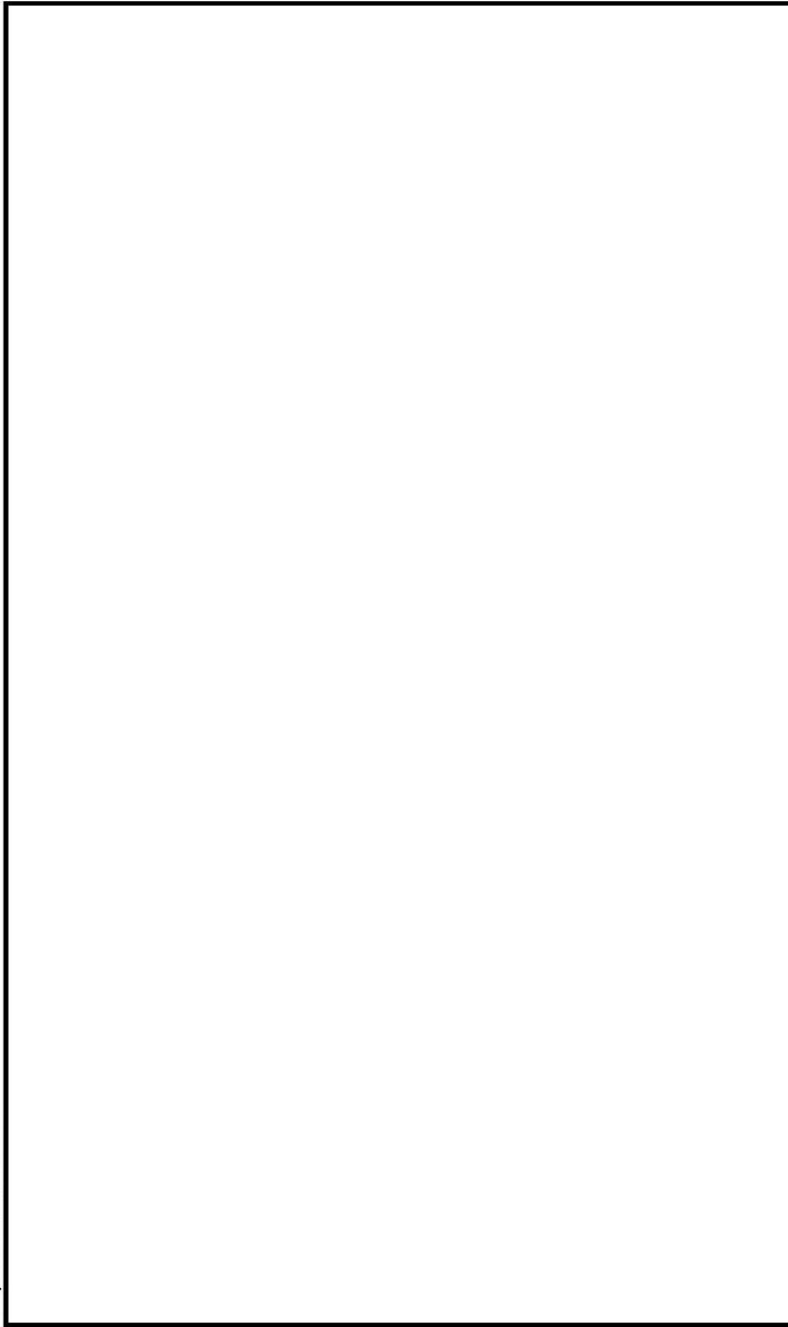
Target Pest _____

Population Levels/Injury Thresholds for Treatment _____

Final Treatment Decision _____

Treatment Method Used	Active Ingredient	EPA Toxicity Category	Quantity of Product Used	Date/Quarter	Time	Hours Spent	Public Notification Type	Results	Staff Initials
Prevention									
Cultural									
Mechanical									
Biological									
Chemical/Pesticide Name									

Map the Location Here:



APPENDIX B: ACKNOWLEDGEMENT OF RECEIPT OF MCSD INTEGRATED PEST MANAGEMENT PLAN; AGREEMENT TO INDEMNIFY MCSD

McKinleyville Community Services District

Acknowledgement of Receipt of the MCSD Integrated Pest Management Plan; Agreement to Indemnify MCSD

I, _____, hereby acknowledgement that I have received a copy of the McKinleyville Community Services District (hereafter referred to as “MCSD” or “the District”) MCSD Integrated Pest Management (IPM) Plan dated March 2, 2016 (hereafter referred to as the “IPM Plan”).

I have read the IPM Plan and understand its contents, and have had an opportunity to ask any questions I may have regarding it.

The IPM Plan is designed to help me get acquainted with MCSD’s Integrated Pest Management. It explains the District’s approach to Pest Management guided by the Board of Director’s Approved Policy Statement:

“McKinleyville Community Services District will utilize the most environmentally sound approaches to pest management, eliminate where feasible the use of pesticides to minimize environmental and health impacts of pest and vegetation management in all cases. To accomplish this, staff will utilize physical, mechanical, cultural, biological, and educational tactics as primary controls.

Pests will be controlled to preserve the integrity of facilities, infrastructure, and public health. Reduced-risk chemical controls will be used when necessary after primary control solutions have been exhausted. In the event reduced-risk chemical controls are not effective Board action will be required before further treatment. Pesticides will not be used to control pests for aesthetic reasons alone.”

I understand and agree to receive prior approval from the IPM Coordinator before conducting any Pest Treatment on MCSD owned property. I further agree that when performing any Pest Treatment on MCSD owned property to comply with the IPM Plan and any conditions of approval by the IPM Coordinator. Because MCSD is a growing and changing organization, I understand it reserves full discretion to add to, modify, or delete provisions of the IPM Plan, or the policies and procedures on which they may be based, at any time without advance notice. For this reason, I agree to first check with the IPM Coordinator, then the General Manager, to obtain current information regarding the status of any particular policy, procedure, or practice. Any modification must be in writing.

To the fullest extent allowable by law, I further agree to indemnify, defend, and hold harmless MSCD, and its directors, agents, and employees, from and against any and all claims, damages, injuries, causes of action, fines, penalties, and/or administrative orders that may be asserted by any person or entity as a result of or otherwise arising from any pest treatment on MCSD property, including without limitation, the use of any chemicals or pesticides, and whether or not such pest treatment is perform in accordance with the IPM Plan or applicable law or regulation.

I understand that the IPM Plan is the property of MCSD, and is intended for my use and reference as a Contractor/Lessee of the District.

Contractor/Lessee Signature

Date

Contractor/Lessee Printed Name