

City of Auburn

Pyrethroid Management Plan



This Pyrethroid Management Plan Framework was developed by Trihydro, Inc. in collaboration with the following agencies:

- City of Auburn
- Regional Water Quality Control Board

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1 Introduction

On June 8, 2017, the Central Valley Regional Water Quality Control Board (Regional Water Board) adopted Resolution R5-2017-0057, the Basin Plan Amendment (BPA) for the Control of Pyrethroid Pesticide Discharges. The BPA was subsequently approved by the State Water Resources Control Board on July 10, 2018 and the Office of Administrative Law (OAL) on February 19, 2019. The United States Environmental Protection Agency (USEPA) approved the Pyrethroid Total Maximum Daily Loads (TMDLs) for the nine urban creeks in Sacramento and Roseville on April 22, 2019. With these approvals, the TMDLs and BPA became fully approved and effective.

The BPA established a Pyrethroids Control Program that includes a variety of actions including, but not limited to:

- Monitoring requirements to assess baseline conditions, as well as continued trend monitoring.
- A conditional prohibition for pyrethroid discharges in exceedance of numeric triggers for Sacramento and San Joaquin River Basin water bodies with the aquatic life beneficial uses.
 - If the numeric triggers are exceeded, the conditional prohibition requires the development and submittal of a Pyrethroid Management Plan (Management Plan) to reduce pyrethroid levels in discharges to the maximum extent practicable.

All municipal stormwater cities (Phase I and Phase II) are subject to the conditional prohibition, and all municipal stormwater cities not subject to the TMDL are required to provide baseline monitoring to the Regional Water Board. However, municipalities regulated pursuant to the Phase II Municipal Separate Storm Sewer System (MS4) permit (Phase II Permit) may, as an alternative, acknowledge that the existing data are representative of their discharge and forego baseline monitoring and develop a Management Plan. This Pyrethroid Management Plan (PMP) is being developed on behalf of the City of Auburn as a Phase II stormwater city.

1.1 Management Plan

This Management Plan has been developed by the City of Auburn to meet the requirements of the BPA—specifically, the conditional prohibition. The City acknowledges that the existing data, such as the data used to characterize municipal separate storm sewer system (MS4)

concentrations in the BPA Staff Report, are representative of the stormwater discharges and, as such, is forgoing the baseline monitoring and submitting this Management Plan.

As part of the Phase II Permit requirements, the City of Auburn will implement a stormwater program with several components that address pesticide management and reduction. These components include, but are not limited to, public education and outreach; inventory, assessment, and stormwater pollution prevention plan (SWPPP) development for City of Auburn-owned and operated facilities; best management practices (BMPs) for operations and maintenance activities; and a landscape design and maintenance program. The Management Plan builds on these efforts so that it leverages the currently implemented activities, while comprehensively addressing the requirements of the BPA.

The Management Plan includes a set of management practices that, taken as a whole, may reasonably be expected to effectively reduce pyrethroid levels in the municipal stormwater discharges. The management practices identified in Section 6c of the BPA were considered for inclusion within the Management Plan. If a particular management practice or activity will not be implemented, justification is provided for the omission.

The Management Plan is organized as follows:

- Section 2 – Education and Outreach Activities
- Section 3 – Pesticide Pollution Prevention Activities
- Section 4 – Progress Reports and Adaptive Management

2 Education and Outreach Activities

The BPA includes a range of education and outreach activities for the general public that encourage management practices that minimize pesticide runoff. Through the stormwater management program, the City of Auburn implements several activities that address pesticide management via education and outreach. The City of Auburn will build on the existing stormwater program activities to implement the following education and outreach activities:

- Residential and Business Outreach
- Point-of-Purchase Outreach
- Outreach Regarding Hiring Pest and Landscape Professionals
- Outreach for Landscape and Irrigation Practices

2.1 RESIDENTIAL AND BUSINESS OUTREACH

The BPA requires the following residential outreach activity:

Undertake targeted outreach programs to encourage communities within a discharger's jurisdiction to reduce their reliance on pesticides that threaten water quality, focusing efforts on those most likely to use pesticides that threaten water quality, potentially by working with DPR, County Agricultural Commissioners, and the University of California Statewide Integrated Pest Management Program, or other entities as appropriate.

The City of Auburn will continue to develop and implement a targeted outreach programs that convey messages to the residents specific to the proper use and application of pesticides in an urban context, as well as encouraging the use of less toxic options to help reduce reliance on pesticides that threaten water quality. The residential outreach activities that are implemented (or will be developed and implemented) by the City include the following:

- Outreach Materials -BMP fact sheets, brochures, flyers, handouts, etc. that are provided by the City of Auburn regarding residential and commercial use of pesticides.
- E-Newsletters – The City of Auburn is evaluating the use of an e-newsletter to share information with the residents that addresses stormwater-related topics, including proper pesticide use and disposal, as well as encouraging the use of less toxic pest control products and methods.
- Website – The City of Auburn will provide pesticide-specific outreach on its website. The website includes links to pesticide-related information and options for less toxic methods of pest control, as well as links to the following:

- Stormwater Municipal Code 53: Stormwater Management and Discharge
 - Construction Storm Water General Permit (2009-0009-DWQ):
https://www.waterboards.ca.gov/water_issues/programs/stormwater/
 - State Water Resources Control Board:
https://www.waterboards.ca.gov/water_issues/programs/stormwater/
 - Best Management Practices (BMP's) and Storm Water Pollution Prevention Plan's (SWPPP) for Construction Sites, please visit the California Stormwater Quality Association (CASQA): <https://www.casqa.org/>
 - Our Water – Our World (OWOW): <http://ourwaterourworld.org>
 - Placer County Agricultural Commissioner Pesticide Registration Page:
<https://www.placer.ca.gov/1561/Pesticide-Registration>
 - University of California Statewide Integrated Pest Management Program (UC IPM):
<http://ipm.ucanr.edu/PMG/menu.homegarden.html>
- Coordinated Outreach – The City coordinates with other City of Auburn departments/divisions to provide outreach to residents using mixed media advertising/outreach campaigns, educational activities, sporting events, countywide events).
 - Household Hazardous Waste – The City encourages public participation in pesticide reduction efforts by coordinating with the Household Hazardous Waste (HHW) program to encourage proper pesticide disposal.
 - Encourage the Community to utilize the Western Placer Waste Management Authority Facility open all year (excepting: New Year’s Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day) for waste disposal. Western Placer Waste Management Authority Website: <https://wpwma.ca.gov/>
 - Our Water – Our World – The City of Auburn considers contracting with Our Water – Our World (OWOW) and has an Integrated Pesticide Management (IPM) Advocate that provides outreach at local store(s). Such outreach includes store mentoring and training for store employees, which allows the store and its employees to better educate the public. IPM Advocates also host in-store public outreach events to talk directly with potential customers about options and recommendations for less toxic methods of pest control. The IPM Advocate also is responsible for filling and maintaining in-store racks with OWOW outreach materials and literature.

- Community Events – The City of Auburn provides pesticide-related outreach to residents at community-wide events. The outreach at coordinated community events may include the following and others:
 - Home Show
 - Mandarin Festival
 - Rodeo
 - County Fair
- Regional Outreach – The City of Auburn participates in regional outreach efforts by leveraging relationships with other agencies to provide outreach to residents. Currently the City is exploring expansion of their existing partnerships to develop outreach and training programs to address Pyrethroids requirements including:
 - Mixed media advertising/outreach campaigns, coordinated events with Placer County Agricultural Commissioner and others.
- UC Master Gardeners – The City of Auburn is considering coordination with Placer County Master Gardeners (who are trained and certified by the University of California Extension and have specific training in pest management) to provide workshops and training to the community regarding integrated pest management (IPM) and other pesticide-related topics.
<https://pcmg.ucanr.org/>
 - Brochures handed out at all point-of-sale locations, e.g., Ace Hardware Garden Center, Farm Supply, Wal-Mart Super Store, etc.
 - Link for UC Master Gardeners on City website: <https://www.auburn.ca.gov/>
 - City of Auburn Pyrethroids Management Program webpage that will be developed on City's website: Healthy Auburn Waters
 - Social Media Campaign to distribute information (e.g., Facebook, Twitter, Instagram, etc.)

2.2 POINT-OF-PURCHASE OUTREACH

The BPA requires the following point-of-purchase outreach activity:

Make available point-of-purchase outreach materials to pesticide retailer(s) in or near the City of Auburn's jurisdiction. These materials shall provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control.

The City of Auburn will develop and implement an approach to provide point-of-purchase outreach materials to local retailer(s) that convey messages to the residents specific to the proper use and disposal of pesticides, potential adverse effects on water quality, and less toxic methods of pest control. The point-of-purchase outreach activities that are implemented (or will be developed and implemented) by the City of Auburn include the following:

- City of Auburn Provides Materials – The City of Auburn continues to develop and/or purchase outreach materials regarding pesticides and less toxic options that it provides to local pesticide retailers, including Target, Home Depot, Save-Mart, Ace Hardware, Placer Farm Supply, etc. Additionally, information is also provided to commercial/industrial businesses through the City’s Business License process.
- Our Water – Our World – The City of Auburn is considering a contract with Our Water – Our World (OWOW), a statewide program specifically designed to address water quality impacts of urban use pesticides and has an OWOW IPM Advocate who provides outreach at local store(s). The IPM Advocate is responsible for setting up and maintaining in-store racks containing OWOW outreach materials. These materials and literature provide customers with information regarding the potentially adverse impacts of pesticides on water quality, proper pesticide use and disposal, and less toxic methods of pest control. Additional information is available on the OWOW website: <http://ourwaterourworld.org>

2.3 OUTREACH REGARDING HIRING PEST CONTROL AND LANDSCAPE PROFESSIONALS

The BPA requires the following outreach activity regarding pest control and landscape professionals:

Conduct outreach to City of Auburn’s residents and businesses who may hire structural pest control and landscape professionals that contains messages that (a) explain the links between pesticide usage and water quality; and (b) provides information about structural pest control IPM certification programs and IPM for landscape professionals.

The City of Auburn has developed and provides pesticide-related outreach to residents and industrial and/or commercial businesses who may hire structural pest control and/or landscape professionals. The outreach to pest control and landscape professionals that is implemented (or will be developed and implemented) by the City of Auburn includes the following:

- Outreach Materials – Specific outreach materials are provided by the City of Auburn regarding hiring of structural pest control and landscape professionals. BMP fact sheets, flyers, handouts that are provided during the Business License¹ process regarding hiring of structural pest control and landscape professionals.
- E-Newsletter –The City of Auburn considers sending an e-newsletter to its community that addresses stormwater-related topics, including the links between pesticide usage and water quality, as well as considerations when hiring structural pest control and/or landscape professionals.
- Website – The City of Auburn intends to supply pesticide-specific outreach on its website: Healthy Auburn Waters (<https://www.auburn.ca.gov/180/Public-Works>). The website includes links to pesticide-related information, including:
 - Our Water – Our World (OWOW):
 - OWOW: <https://ourwaterourworld.org/>
 - Pesticides and Water Quality: <https://ourwaterourworld.org/pesticides-and-water-quality/>
 - Planting a Healthy Garden: <https://ourwaterourworld.org/healthy-garden/>
 - University of California Statewide Integrated Pest Management Program (UC IPM):
 - Hiring a Pest Control Company: <http://ipm.ucanr.edu/PMG/PESTNOTES/pn74125.html>
 - BMP Fact sheets are provided for businesses (i.e., industrial and commercial facilities) that address the links between pesticide usage and water quality, as well as considerations when hiring structural pest control and/or landscape professionals.
- Coordinated Outreach – The City of Auburn coordinates with other City of Auburn departments/divisions to provide outreach to residents.
 - Chamber of Commerce
 - Parks and Recreation
- Community Events – The City of Auburn provides pesticide-related outreach to residents at community-wide events. The outreach includes: BMP fact sheets, brochures, flyers, handouts, etc. These are provided by the City of Auburn regarding residential use of pesticides. Events include the following:

¹ <https://www.auburn.ca.gov/337/Business-License>

- Home Show
- Mandarin Festival
- Rodeo
- County Fair

2.4 OUTREACH FOR LANDSCAPE AND IRRIGATION PRACTICES

The City will provide outreach regarding landscape design and irrigation practices via its business license process and by their website by providing links to sites focusing on water conservation and landscape design, which may include:

- Save Our Water: <https://saveourwater.com/>
- California Department of Water Resources: <https://water.ca.gov/Water-Basics/Conservation-Tips/Plant-and-Landscape-Guide>
- Be Water Wise: <http://www.bewaterwise.com>
- USEPA Water Sense: <https://www.epa.gov/watersense/water-smart-landscape-design>
- Placer County Water Agency: <https://www.pcwa.net/smart-water-use/drought>

3 Pesticide Pollution Prevention Activities

The BPA includes a range of pollution prevention activities for public agencies that reduce reliance on pesticides that adversely impact water quality. Through the stormwater management program, the City of Auburn implements several activities that address pesticide management via pollution prevention. Consistent with the BPA, the City of Auburn will build on the existing stormwater program activities to implement the following pollution prevention BMPs:

- Practices to Reduce Pesticide Use
- Implementation of Integrated Pest Management Policies and Practices
- Support local agencies and organizations in the Pesticide Regulatory Processes

3.1 PRACTICES TO REDUCE PESTICIDE USE

The BPA requires the following practices to reduce pesticide use:

Reduce reliance on pyrethroids and other pesticides that threaten water quality by adopting and implementing policies or procedures that minimize the use of pesticides that threaten water quality in the discharger's operations and on the discharger's property.

The City of Auburn implements a landscape design and maintenance program and specific practices to reduce the amount of water, pesticides, herbicides, and fertilizers used during City of Auburn operations and activities on City of Auburn-owned or operated facilities, including park sites, athletic fields, landscaped medians, and other landscaped areas.

The activities to reduce pesticide use that are implemented (or will be developed and implemented) by the City of Auburn include the following:

- Pesticide-Related Policies and Procedures – Annual Safety & Educational Training, Annual Pesticide Product Compliance Inventory Audit, complete Pesticide Equipment Audit to ensure all staff has all necessary items to be in compliance, and complete annual reporting through the Department of Pesticide Regulation (DPR) Pesticide Use Reporting² CalAg permits³, or similar County agencies, as appropriate. Obtain restricted materials permit annually and adhere to the Placer County Hazardous materials disposal protocol. Dispose of all used pesticide containers at Placer County pesticide disposal or recycling events.

3.2 IMPLEMENTATION OF INTEGRATED PEST MANAGEMENT POLICIES AND PRACTICES

The BPA requires the implementation of integrated pest management (IPM) policies and practices, as follows:

Develop and implement an Integrated Pest Management policy that:

- *Is consistent with IPM as defined by the University of California Statewide IPM Program (UC-IPM) or the California Structural Pest Control Board definition.*
- *Applies to all City of Auburn staff who conduct or contract for pest management and to pest management vendors under contract to the City of Auburn.*

² <https://www.cdpr.ca.gov/docs/pur/forms/purforms.htm>

³ www.calagpermits.org

- *Assigns responsibilities to a designated staff position and/or department to coordinate City of Auburn activities and ensure that the IPM policy is implemented.*

The IPM policies and practices that are implemented by the City of Auburn can be found in the City of Auburn's IPM Policy found in Appendix A.

3.3 PARTICIPATION IN PESTICIDE REGULATORY PROCESSES

The BPA requires support of pollution prevention through participation in pesticide regulatory processes, as follows:

Track USEPA and DPR pesticide evaluation and registration activities as they relate to surface water quality and encourage these agencies to accommodate urban water quality concerns within their pesticide registration processes. This may include assembling and submitting available information (such as monitoring data) to USEPA and DPR during public comment periods to assist in their pesticide evaluation and registration activities. This best management practice would be implemented most effectively through a cooperative regional or statewide approach.

Participation in pesticide regulatory processes by the City of Auburn includes supporting the local and state agencies and may include the following:

Participation in the California Stormwater Quality Association (CASQA). One of CASQA's subcommittees, the Pesticides Subcommittee (PSC) currently conducts a number of activities that assist in tracking and reporting on the USEPA and DPR pesticide evaluation and registration activities. These have generally included the following:

- Regulatory-Related Activities – The PSC addresses pesticide uses that impact stormwater discharges, provides input to EPA and DPR to improve regulations, compiles relevant information, assists members with compliance strategies, and coordinates its activities with other agencies statewide. The types of activities include:
 - Support for the development of the Urban Pesticides Amendment;
 - Support for the formation of the Urban Pesticides Coordinated Monitoring Program (potential statewide monitoring program);
 - Review of scientific literature to update and prioritize the Pesticide Watch List;

- Prepared written comments to EPA on its Endangered Species Act Pesticides Risk Assessment proposed procedures and other pesticide evaluations and re-registrations.
- Annual Report – This report provides a summary of the CASQA efforts that were conducted on behalf of the membership during that reporting year to prevent pesticide pollution in urban waterways. In addition, the report has provided an effectiveness assessment regarding the activities that were conducted.

On an annual basis, CASQA identifies the highest priority activities and implements these activities based on available funding and membership needs. As such, implementation of past activities, such as those described above, is not a guarantee of continued implementation of similar activities in the future.

4 Progress Reports and Adaptive Management

4.1 REPORTING REQUIREMENTS

The BPA requires an annual progress report to be developed to document the management practices that have been implemented, evaluate pyrethroid concentrations with respect to the pyrethroid triggers, and identify effective actions to be taken in the future. Accordingly, the City of Auburn will prepare and submit a progress report by October 15 each year in conjunction with the Phase II Permit annual report submitted via Stormwater Multiple Application and Report Track System (SMARTS). Pending approval of this Management Plan, the first progress report is anticipated to be submitted in 2024, after a full year of Management Plan implementation.

4.2 REPORT APPROACH AND CONTENT

The BPA requires an annual progress report, as follows:

A progress report shall be provided to the Board annually or at a frequency consistent with the discharger's permit requirements to document the management practices that have been implemented, to evaluate pyrethroid concentrations with respect to the pyrethroid triggers, and to identify effective actions to be taken in the future. The progress report can be included in other reports submitted to the Board, as appropriate.

The City of Auburn will evaluate the implementation of the required management practices and present the results in narrative, tabular, and/or graphical form, as appropriate. The City of Auburn anticipates that the annual progress report may include, but not be limited to, the following:

- Documentation of the management practices that have been implemented
 - A narrative summary of BMP implementation, by category (i.e., Education and Outreach Activities and Pesticide Pollution Prevention Activities)
 - Tabular and/or graphical presentations of BMP implementation, as well as summary statistics or other general descriptors to most usefully present the implementation results
- Evaluation of pyrethroid concentrations with respect to the pyrethroid triggers
- Identification of effective actions to be taken in the future
 - This information will be identified through the adaptive management process (see Section 4.3).

4.3 ADAPTIVE MANAGEMENT

The BPA acknowledges that during the course of Management Plan implementation, if the pyrethroid numeric triggers are not being met, adaptive management may be necessary:

If the management practices do not result in discharge concentrations at or below the pyrethroid numeric triggers, then the MS4 discharger shall either identify any available, reasonable and feasible additional/alternative practices for implementation, or provide a justification for why current practices are expected to result in achieving the triggers within a reasonable timeframe. This justification may include actions required by state and federal regulations.

As a part of the reporting process, and on approximately a five-year timeframe (e.g., in conjunction with the “Year 5” Phase II Permit Annual Report, the Region-wide Permit End-Term Reports, or the equivalent), the City of Auburn will qualitatively evaluate the effectiveness of the Management Plan, as well as the experience that staff has had in implementing the Management Plan, to identify potential modifications and refine the Management Plan approach, as needed.

The Management Plan may be reviewed and revised in the future based on the following:

- Analysis of trend monitoring results (5-10 year period of record);

- Formalized proactive regulation of pesticides by the DPR and identification cost-effective activities that can be implemented or supported by the regulated entities, including the City of Auburn (see Section 3.3);
- Identification by the City of Auburn of changes to improve the effectiveness of specific Management Plan activities, based on its experience in implementing the stormwater program and the activities described in Section 2 and Section 3.