

POLLUTION PREVENTION REPORT

2025



City of Palo Alto Regional Water Quality Control Plant
2501 Embarcadero Way, Palo Alto, CA 94303

Operated by the City of Palo Alto for the cities of Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford and East Palo Alto Sanitary District

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I. Background

This report was prepared by the City of Palo Alto to fulfill the Regional Water Quality Control Plant’s Pollution Prevention (P2) reporting requirements for the January 1, 2025, through December 31, 2025 reporting period under its National Pollutant Discharge Elimination System (NPDES) Permit No. CA0037834 Order R2-2025-0003, adopted on February 12, 2025 and effective April 1, 2025.

A. City of Palo Alto Regional Water Quality Control Plant

Service Area

The City of Palo Alto (City) operates the Regional Water Quality Control Plant (RWQCP), a wastewater treatment facility located on the shore of the San Francisco Bay. The service area includes the East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, and Stanford University. The RWQCP treats wastewater from these communities, also known as Partner agencies, prior to discharging to the Lower South San Francisco Bay (Figure 1).

Approximately 244,000 people live in this service area. In 2025, the plant treated an average of 18.2 million gallons per day (MGD) of wastewater (Figure 2).

All wastewater collection systems are owned and maintained by the individual Partner agencies. Each collection system is under the jurisdiction of the



Figure 1. RWQCP Service Area

Statewide Sanitary Sewer Systems General Order (Order WQ 2022-0103-DWQ) and is reported separately by each Partner agency. Service area collection systems, totaling approximately 640 linear miles of pipeline, flow into nine main trunklines that then flow to the RWQCP.

The RWQCP uses physical, biological, and chemical treatment to remove about 99% of the solids and organic materials from influent wastewater. These treatment steps also remove most pollutants prior to discharge. However, the RWQCP, like other municipal wastewater treatment plants, was not designed to remove all pollutants such as certain chemicals, metals, nutrients, and contaminants of emerging concern. The scientific and regulatory communities have growing concerns over some pollutants as new studies are conducted.

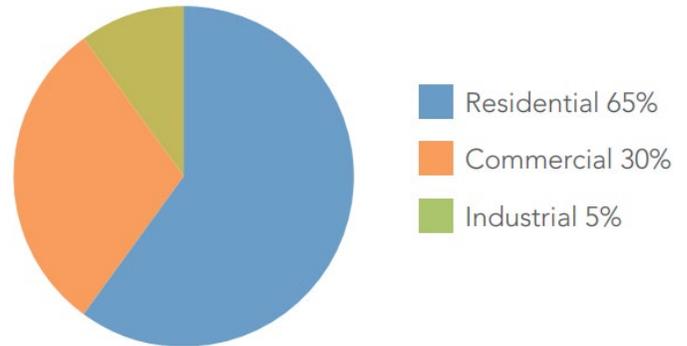


Figure 2. Wastewater Sources to RWQCP

To address these concerns, the RWQCP is working to reduce nutrients and newly identified contaminants of concern in wastewater through pollution prevention programs, regulatory actions, and capital improvement projects.

Treatment Process

Wastewater is conveyed to the RWQCP, which is then treated to meet at least advanced secondary treatment standards before being discharged in the Lower South San Francisco Bay. Excluding during extreme wet weather, the RWQCP also meets tertiary treatment standards. Recovered solids (sludge) are then dewatered and off-hauled for further treatment and reuse via land application (Figure 3).

The liquid process includes:

- Preliminary and primary treatment: bar screens, centrifuge grit chamber, primary sedimentation basins
- Secondary treatment: fixed film reactors
- Advanced secondary treatment: nitrifying-activated sludge aeration basins, secondary clarifiers
- Tertiary treatment: dual media (coal/sand) filters, UV disinfection
- Additional treatment to produce recycled water: sand filters, chlorine disinfection

- Treated effluent is discharged to the Lower South San Francisco Bay at an unnamed slough located behind the Palo Alto Airport (Average 18 MGD), and at a pond located in Emily Renzel Marsh (1 MGD)
- Recycled water (1 MGD) is used at select golf courses, parks, and corporate campuses in the service area

The solids process includes:

- Scum & solids thickening, dewatering on belt filter presses
- Dewatered “sludge cake” is then stored in bins pending off-site transport to two facilities where it is further treated by composting or using thermal and chemical treatment
- The resulting biosolids are used as agricultural fertilizer

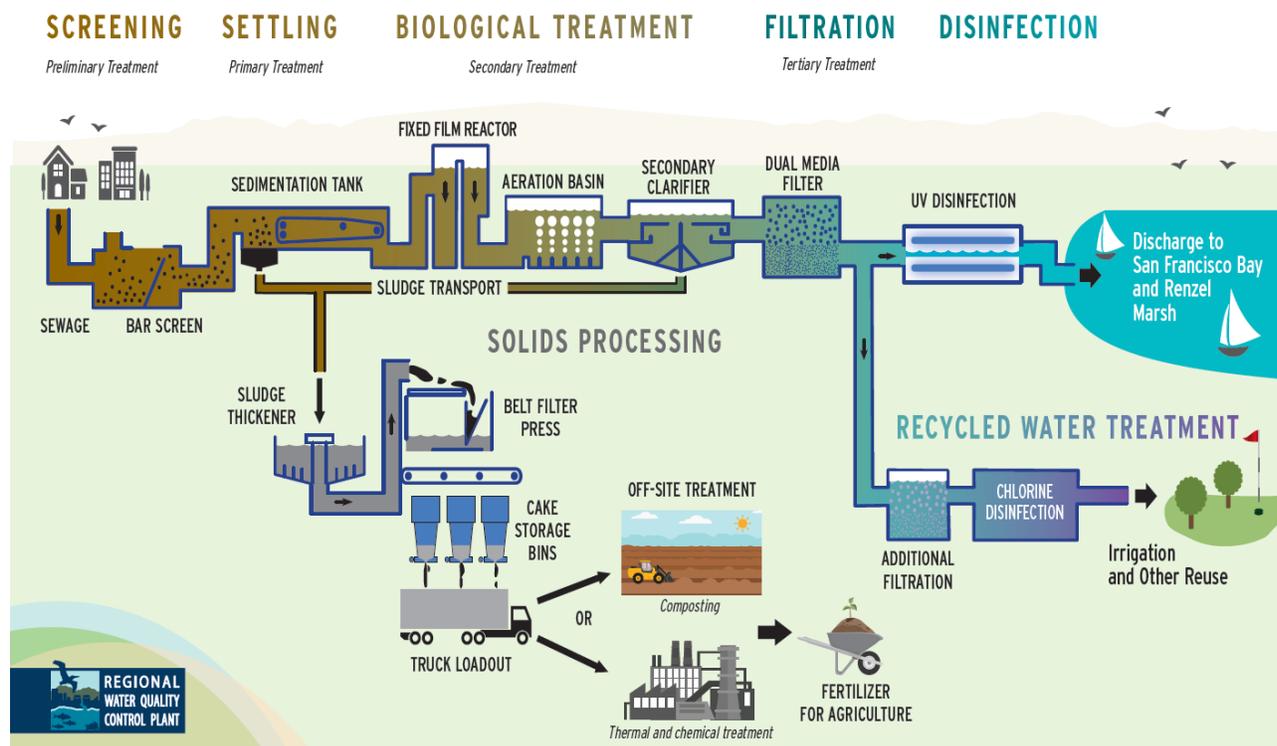


Figure 3. Regional Water Quality Control Plant Treatment Process Diagram

Permits

The RWQCP falls under three National Pollutant Discharge Elimination System (NPDES) permits, including its main discharge permit and permits governing specific pollutants such as nutrients, mercury and polychlorinated biphenyls (PCBs). As a producer of recycled water, the RWQCP also falls under a recycled water permit. A summary of the

RWQCP permits issued by the Regional Water Quality Control Board (Regional Board) is shown in Table 1.

Table 1. Palo Alto Regional Water Quality Control Plant NPDES Permit Summary

Permit	Description
<p>NPDES Permit No. CA0037834</p> <p>Order No. R2-2025-003</p> <p>(April 1, 2025 - March 31, 2030)</p>	<p>RWQCP Main Discharge Permit</p> <ul style="list-style-type: none"> Includes reporting and monitoring requirements as well as effluent limitations for conventional pollutants (biochemical oxygen demand, ammonia, suspended solids, enterococci), effluent toxicity and toxic pollutants (eg. metals, cyanide and dioxin) that is specific to the RWQCP Requires an industrial pretreatment program, pollutant minimization program, and public outreach
<p>NPDES Permit No. CA0038849</p> <p>Order No. R2-2022-0038</p> <p>(February 1, 2023 - January 31, 2028)</p>	<p>Mercury and Polychlorinated Biphenyls (PCBs) Permit</p> <ul style="list-style-type: none"> Applies to all Bay Area Publicly Owned Treatment Works (POTWs) and some industrial dischargers Identifies wasteload allocations and describes implementation requirements of the mercury and PCB total maximum daily load (TMDL). A TMDL is the maximum amount of a pollutant that the San Francisco Bay can receive while still meeting water quality standards.
<p>NPDES Permit No. CA0038873</p> <p>Order No. R2-2024-0013</p> <p>(October 1, 2024 - September 30, 2029)</p>	<p>Nutrient Watershed Permit</p> <ul style="list-style-type: none"> Applies to all Bay Area POTWs and some industrial dischargers Requires treatment plants discharging to the Bay to routinely monitor and report their effluent for key nutrient parameters, meet interim dry season discharge limits, financially support scientific research on the topic, and conduct special studies that evaluate using recycled water programs and natural systems to reduce nutrient discharges to the Bay. Dischargers must prepare to meet final effluent limits by 2034.
<p>Order No. 93-160</p>	<p>RWQCP Recycled Water Permit</p> <ul style="list-style-type: none"> Ensures that the quality of recycled water produced by the RWQCP meets strict standards for biochemical oxygen demand, dissolved oxygen, dissolved sulfide, turbidity, total coliform bacteria, and chlorine residual.

- Restricts the use of recycled water to appropriate applications such as landscape irrigation, industrial cooling, decorative fountains and toilet flushing.

B. 2025 Program Updates

In 2025 the RWQCP pollution prevention program highlights included major ordinance updates, significant development of outreach programs and materials, and progress on key capital improvement projects.

The City of Palo Alto updated its **Sewer Use Ordinance** to better align with the United States Environmental Protection Agency’s Model Pretreatment Ordinance, incorporated requirements and recommendations from a 2022 State Water Resources Control Board audit of the RWQCP’s Pretreatment Program, and better codified current City implementation practices. The changes went into effect on October 30, 2025 and included updated provisions for sewer use, fats oils and grease (FOG), and septic hauling that comply with federal requirements and are protective of the San Francisco Bay.

Additionally, 2025 marked the first year of reinitiating the elementary and middle **school programs** since 2019, and the creation of new print and digital materials for schools, residents and businesses. The City contracted with Marine Science Institute and initiated a formal agreement with Palo Alto Junior Museum and Zoo to provide classroom education programs and field trips to school-age children throughout the service area. More information is detailed in Section IV.B.

Other major outreach highlights include the migration of the Regional Water Quality Control Plant’s **website** to a new location on the City of Palo Alto’s website, PaloAlto.gov/WastewaterTreatment, to conform with City standards and the forthcoming “.gov” URL requirements for local governments under Assembly Bill (AB) 1637. The website migration also included a content refresh, the addition of capital projects pages (PaloAlto.gov/WastewaterTreatment-Projects), and a permit portal (PaloAlto.gov/WastewaterTreatment-Permits) to streamline wastewater and recycled water permit application processes. More information about the website is detailed in Section IV.C.1.

Progress continued on plant capital improvement projects that result in reducing pollutants to the Bay. These included:

- Ongoing **secondary treatment upgrades**, for improved nutrient removal
- Groundbreaking of the **local advanced water purification facility** project, to remove salts and improve the quality of recycled water, and

- The construction of a **horizontal levee** in the Palo Alto Baylands, which uses treated wastewater to irrigate native plantings on its slope.

The RWQCP capital improvements projects are not detailed in this report, but accompanying public education efforts are summarized in Section IV, and additional project information can be found at PaloAlto.gov/WasteWaterTreatment-Projects.

[Appendix A](#) presents an overview of the RWQCP’s pollution prevention programs by pollutant, including sources, program priorities, updates for the current reporting year, and program goals.

C. Regional Collaborations

The RWQCP strives to create and implement an effective pollution prevention program to benefit its member agencies and residents, commerce and industry within the service area. Collaborative working groups are effective at furthering these goals and creating solutions for regional participants. The RWQCP participates in the following regional collaborations and funds a selection of nonprofit organizations that further pollution prevention goals.

- Bay Area Clean Water Agencies (BACWA)
- Bay Area Pollution Prevention Group (BAPPG)
- California Association of Sanitation Agencies (CASA)
- California Water Environment Association (CWEA)
- Lower South Bay Dischargers
- National Association of Clean Water Agencies (NACWA)
- Product Stewardship Institute
- Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and Ad-Hoc Workgroups
- Santa Clara County Climate Collaborative
- San Francisco Estuary Institute (SFEI): Aquatic Science Center, Regional Monitoring Program Steering Committee, and Working Group Committees
- Water Environment Federation (WEF)
- Water Environment Research Foundation (WERF)
- WateReuse

Please refer to the [2025 BAPPG annual report](#) for a summary of regional coordination efforts on pollutants of concern. The report can be downloaded on the BACWA website at BACWA.org.



II. Pollutants of Concern

A. Pollutants Overview

The RWQCP’s current Pollutants of Concern (POCs), along with the rationale for their selection are listed in Table 2. Each POC is addressed in a dedicated section which includes information on the pollutant background, identification of its sources to sanitary sewer system, and a discussion of the RWQCP pollution prevention program achievements, goals, and future plans. This information is also summarized in [Appendix A](#).

Table 2. Sources of Pollutants of Concern to the RWQCP

Pollutant of Concern	Sources to Sanitary Sewers	Reasons for Selection
Copper	Plumbing; Industrial processes (a wide range of processes including research & development laboratories, cooling towers, and medical facilities); Pesticides and algaecides	Effluent limitation; sludge management limits
Cyanide	Industrial processes (such as metal finishing or semiconductor manufacturing)	Effluent limitation
Fats, Oils and Grease (FOG)	Grease from food preparation at residences and businesses	Sanitary Sewer System Management Plan; sanitary sewer overflows

Mercury	Dental offices: Scrap amalgam, chair-side trap waste, filter waste, and amalgam sludge; Improper disposal of mercury containing wastes (e.g. from thermostats, thermometers, fluorescent bulbs, and novelties)	U.S. EPA 303(d) listing; effluent limitation
PCBs	Legacy contaminants from building materials, electrical utilities, and industrial sources (1950-1980)	U.S. EPA 303(d) listing
Salinity	Human waste; Inflow and infiltration of saline groundwater into the collection system	Recycled water program expansion

B. Copper

1. Pollutant Background

The RWQCP’s main discharge permit requires a Copper Contingency Plan and Control Program to reduce the amount of copper entering the Bay ([Appendix B](#) and [Appendix C](#)). Heavy metals such as copper and silver can have detrimental effects to aquatic organisms, like fish, invertebrates and plants, including reduced growth and reproduction rates, developmental abnormalities, bioaccumulation, paralysis and death. RWQCP influent and effluent loadings are tracked to evaluate the overall success of the Copper Control Program. Estimated contributions of copper sources to the RWQCP (2002) are presented in Figure 4.

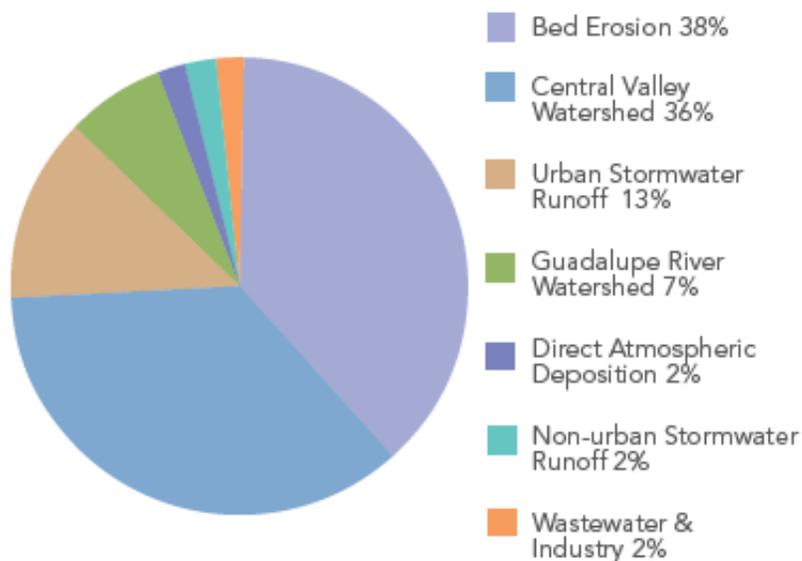


Figure 4. Estimated copper sources to the RWQCP

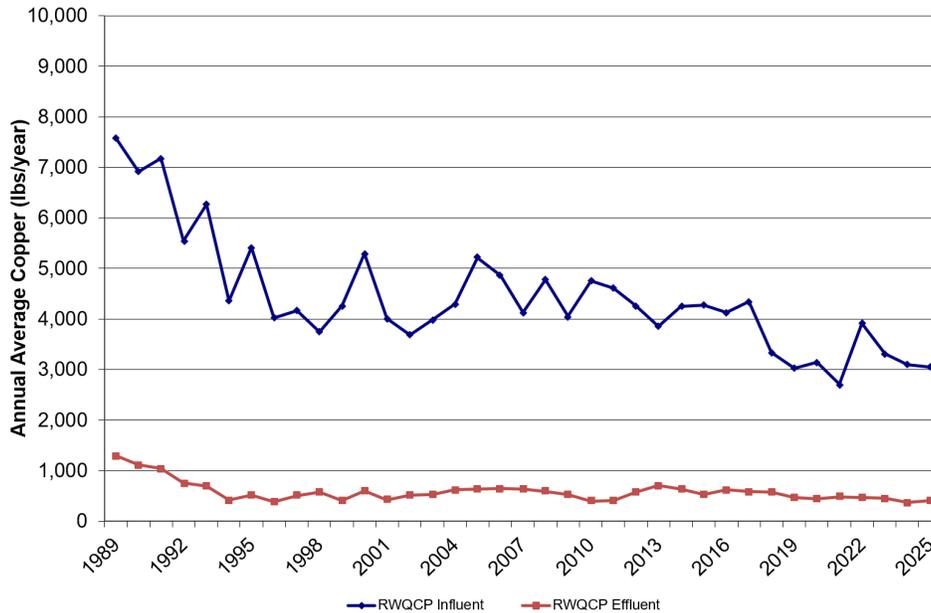


Figure 5. RWQCP Copper Influent and Effluent Loading: 1989-2025

Figure 5 presents the annual copper mass loadings in the RWQCP’s influent and effluent from 1989 through 2025. Influent and effluent copper mass loadings decreased steadily from 1989 until 1994 when copper mass loadings reached a low plateau. Since then, they have remained relatively stable. The decrease in copper effluent during this period may be attributed to a decrease in copper coming into the Plant and/or an increase in Plant performance.

2. Program Summary, Accomplishments, and Future Plans

Table 3. Copper Control Program Summary, Accomplishments and Future Plans

Copper Control Program	
Relevant Permit	Regional Water Quality Control Plant’s (RWQCP) National Pollutant Discharge Elimination System (NPDES) permit (Order No. R2-2025-0003, NPDES No. CA0037834)
2025 Highlights	<ul style="list-style-type: none"> Adopted and conducted outreach on the updated Sewer Use Ordinance as it concerns industrial discharges, pool draining, and prohibited pool chemicals Permitted large industrial sources of copper and restricted their discharge per the Sewer Use Ordinance

	<ul style="list-style-type: none"> • Conducted routine surveillance sampling of sewer trunklines • The 2025 copper influent concentrations increased by 10 percent and loads decreased by 1 percent when compared to 2024; flows decreased by 10 percent when compared to 2024 and resulted in offsetting the concentration increase making the 2025 copper loading comparable to 2024.
2026 Main Goals	<ul style="list-style-type: none"> • Continue to monitor industrial discharges of copper and surveillance of sewer trunklines
Program Evaluation Metrics	<ul style="list-style-type: none"> • Percentage of industrial dischargers in compliance with Sewer Use Ordinance, refer to Pretreatment Program Annual Report for summary of industrial discharger compliance • Percentage change in treatment plant influent copper concentrations and loads

C. Cyanide Reduction Program

1. Pollutant Background

The Permit requires the RWQCP to have a Cyanide Action Plan and Control Program to reduce the amount of cyanide entering the Bay ([Appendix D](#) and [Appendix E](#)). Cyanide is a pollutant occurring from industrial processes such as metal finishing or semi-conductor manufacturing. In the ecosystem it can impact aquatic life by inhibiting cellular respiration and causing rapid death through oxygen deprivation. Lower, long-term exposure can lead to reduced growth, impaired swimming, and inhibited reproduction in fish.

The Cyanide Control Program requires that contributing sources, which are primarily industrial sources, be permitted, inspected annually, and provided with cyanide pollution prevention educational material. During inspections, RWQCP pretreatment staff review the importance of cyanide control and confirm that appropriate control measures are being implemented.

Additionally, contributing sources are required to properly store, segregate and pretreat all cyanide-bearing waste streams prior to combination with other non-cyanide bearing waste streams before sanitary sewer discharge. Under permit they must perform sampling of process waste streams to verify compliance with cyanide discharge standards. The RWQCP pretreatment staff perform verification sampling.

Additional information about the Cyanide Control Program and contributing sources is available in the *Pretreatment Program Annual Report*.

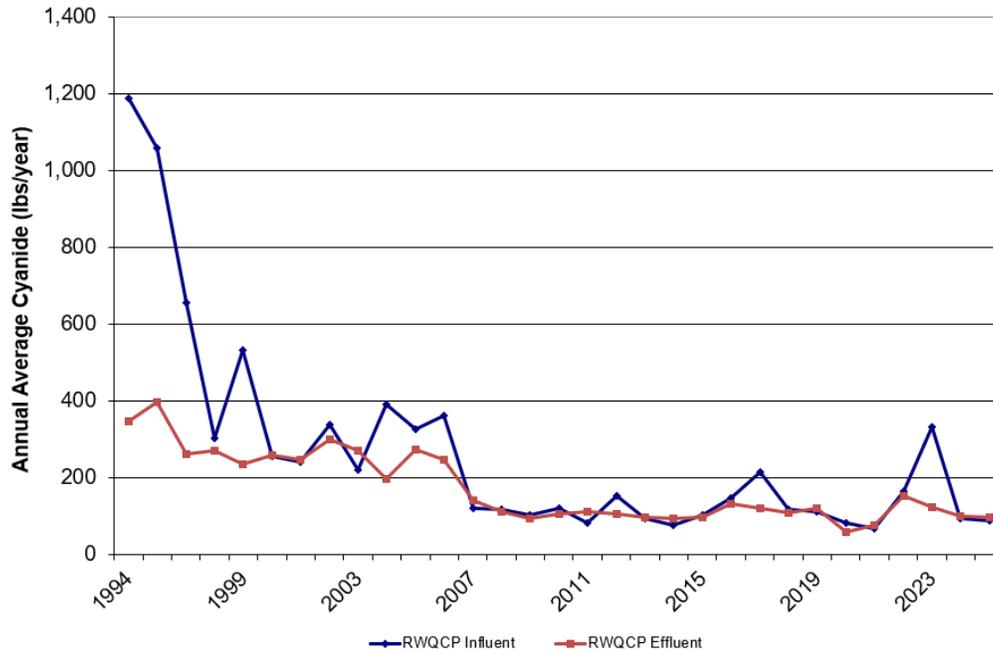


Figure 6. RWQCP Cyanide Influent and Effluent Loading: 1994-2025

Figure 6 presents the annual cyanide mass loadings in the RWQCP’s influent and effluent from 1994 through 2025. Influent and effluent mass loadings generally decreased from 1994 until 2007 and effluent concentrations remained below permit thresholds.

2. Program Summary, Accomplishments, and Future Plans

Table 4. Cyanide Control Program Summary, Accomplishments and Future Plans

Cyanide Control Program	
Relevant Permit	Regional Water Quality Control Plant’s (RWQCP) National Pollutant Discharge Elimination System (NPDES) permit (Order No. R2-2025-0003, NPDES No. CA0037834)
2025 Highlights	<ul style="list-style-type: none"> Adopted the updated Sewer Use Ordinance and conducted outreach to industrial dischargers Permitted industrial sources of cyanide and restricted their discharge per the Sewer Use Ordinance Conducted routine surveillance sampling of sewer trunklines Reviewed current best management practice (BMP) implementation with industrial dischargers

	<ul style="list-style-type: none"> • No significant cyanide discharge occurred in 2025 as defined by the main NPDES permit. • The 2025 cyanide influent concentrations remained below detection levels) with load estimates illustrating the decrease in flows when compared to 2024.
2026 Main Goals	<ul style="list-style-type: none"> • Continue to monitor industrial discharges of cyanide and surveillance of sewer trunklines • Create BMP factsheet for control of CN discharge and distribute to industrial dischargers
Program Evaluation Metrics	<ul style="list-style-type: none"> • Percentage of industrial dischargers in compliance with Sewer Use Ordinance, refer to Pretreatment Program Annual Report for summary of industrial discharger compliance • Percent change in treatment plant influent cyanide concentrations and loads

D. Fats, Oils and Grease (FOG)

1. Pollutant Background

The discharge of fats, oils and grease (FOG) to the sanitary sewer can cause or contribute to blockages that may result in discharges of untreated wastewater to the City’s storm drain system, creeks and the Bay. These Sanitary Sewer Overflows (SSOs) pose a risk to human health, aquatic life, and the environment.

The primary sources of FOG entering the collection system and ultimately the RWQCP are from commercial and residential sectors, including single family homes and multi-family housing developments. Commercial businesses that contribute to FOG are food facilities such as restaurants, grocery stores, food courts and cafeterias. There are several high density and high-volume restaurant areas in the service area including the partner cities’ downtown areas and commercial business districts. In Palo Alto, these include Downtown, Midtown, Town and Country Village, Stanford Shopping Center and the California Avenue business districts.

2. Program Summary, Accomplishments, and Future Plans

The City adopted new FOG ordinance requirements in 2025 to modernize and improve FOG management. The City’s FOG program aims to reduce the severity and frequency of SSOs linked to FOG, as well as the cleanup costs and liability associated with cleanups.

The Utilities Department prioritizes this work in its Sewer System Management Plan and tracks SSOs and their cause (Table 5). In addition, the Public Works Department has a full-time FOG Inspector who conducts facility inspections (Table 6) and focuses on reducing these pollutants to creeks and the Bay.

The primary targets for increased inspection, enforcement and preventative sewer line cleaning are high density and high-volume restaurant areas. In Palo Alto, this includes Downtown, Midtown, Town and Country Village, Stanford Shopping Center, and the California Avenue Business districts.

Additionally, the City's FOG Program Staff reviews plans and specifications for proposed new and remodeled food facilities to ensure optimal design for FOG control and pollution prevention. Requirements for new construction and remodels include:

- all grease-generating drainage fixtures must be plumbed to an approved and properly sized Grease Control Device (GCD); and
- all non-grease generating drainage fixtures, including high temperature discharges, shall be plumbed directly to the sanitary sewer system

Table 5 provides an annual summary of FOG inspections, associated enforcement and SSO data related to food facilities. Types of enforceable actions include:

- excessive FOG on and around outdoor waste oil bins;
- storm drain discharges, or threatened storm drain discharges, such as washing kitchen equipment outside, allowing wastewater to flow to the storm drain system, or dumping mop wastewater in outside areas;
- failure to keep a maintenance log that documents GCD clean-out activities;
- failure to have an adequate and/or properly functioning GCD;
- contribution to at least one SSO; and
- the presence of food waste grinders that were to be removed by January 1, 2007.

Table 5. Annual Sanitary Sewer Overflows (SSOs) (Palo Alto)

Year	Commercial		Residential		Total
	SSO caused only by FOG	FOG-related SSO	SSO caused only by FOG	FOG-related SSO	
2013	1	4	3	7	15
2014	2	2	-	6	10
2015	2	1	3	4	10
2016	1	1	2	2	6
2017	1	0	1	1	3
2018	0	0	0	2	2
2019	0	0	0	1	1
2020	1	1	7	0	9
2021	0	0	3	2	5
2022	1	1	0	5	7
2023	0	3	2	5	10
2024	0	3	1	22	26
2025	0	2	3	10	18
SSO Caused by only FOG = a sanitary sewer overflow where fats, oils and grease were identified as the sole source of the backup			FOG-related SSO = a sanitary sewer overflow where FOG contributed to the blockage, but there was other primary build-up (eg. debris, roots)		

Table 6. FOG Inspections – 2025 Evaluation (Palo Alto)

Evaluation Criteria	2025 Evaluation (number inspected)
Facilities Inspected	104
Inspections	118
Verbal Warnings	14
Warning Letters	8
Notices of Violation	2
Compliance Agreements	0
Percent Compliance related to Total Inspections	77%
Plan Sets Reviewed	79
Number of Grease related SSOs in Residential Areas	13
Number of Grease related SSOs in Commercial Areas	2

Table 7. FOG Program Summary, Accomplishments and Future Plans

FOG Program	
Relevant Permit	Regional Water Quality Control Plant’s (RWQCP) National Pollutant Discharge Elimination System (NPDES) permit (R2-2025-0003, NPDES No. CA0037834)
2025 Highlights	<ul style="list-style-type: none"> Adopted the updated Sewer Use Ordinance, including a standalone FOG Ordinance, and conducted outreach to food facilities and residents The new ordinance is aimed at reducing the bypass of FOG by incorporating new technologies and practices at food facilities Reviewed 79 plan sets for compliance with FOG pollution prevention and best management practices, such as grease control devices Conducted 118 inspections at 104 food facilities for FOG requirement compliance Enrolled grease waste haulers in digital reporting system to allow for compliance tracking of GCD maintenance FOG outreach highlights are described in Section IV.
2026 Main Goals	<ul style="list-style-type: none"> Inspect one-third of Palo Alto Food facilities Conduct plan checks for new or remodeled food facilities to ensure GCDs are installed properly Publish new FOG website as a resource for food facilities Implement new requirements in FOG ordinance. Provide outreach and implement secondary containment standards for waste oil bins stored outdoors.
Program Evaluation Metrics	<ul style="list-style-type: none"> Number of restaurants inspected Percent compliance with ordinance requirements Number of plan checks Number of sanitary sewer overflows related to FOG

E. Mercury and Polychlorinated Biphenyls (PCBs)

1. Pollutant Background

In 2006, due to the high levels mercury and PCBs in the Bay, the State identified the San Francisco Bay as “impaired” for both pollutants and listed it on the 303(d) List–California’s list of impaired waters per the Federal Clean Water Act (CWA). Per CWA requirements, the

Regional Water Quality Control Board (Regional Board) developed total maximum daily load (TMDL) documents for both pollutants.

A TMDL is the maximum amount of a pollutant that a body of water (e.g., San Francisco Bay) can receive while still meeting water quality standards. TMDLs generally describe what must be done by the permittee(s) in order to meet wasteload allocation (the pollutant load allocated to current and future point sources) requirements. TMDLs were adopted for both mercury and PCBs in 2006 and 2008, respectively. In turn, the Mercury and Polychlorinated Biphenyl (PCB) National Pollutant Discharge Elimination System (NPDES) Permit identifies the wasteload allocations and describes the implementation requirements of both TMDLs.

Mercury and PCBs are legacy contaminants. Mercury was once used widely in gold mining processes and is now used in switches, thermometers and dental fillings. Concerns over toxicity have led to reduced use and phaseouts in products such as fluorescent light bulbs. Polychlorinated biphenyls were used in building materials, electrical utilities and industry from the 1950s to 1979 when they were banned.

Mercury and PCBs are pollutants known to bioaccumulate. Contamination of these pollutants also affects existing beneficial uses of water bodies for things like sport fishing, preservation of rare and endangered species, and wildlife habitat. Point sources for mercury discharged to the RWQCP include laboratory, hospital, and dental office wastewater. Additional sources include human waste, food waste, and stormwater inflow. While PCB non-point sources are unknown, they may be associated with waste and wastewater generated from old industrial equipment which may contain PCBs.

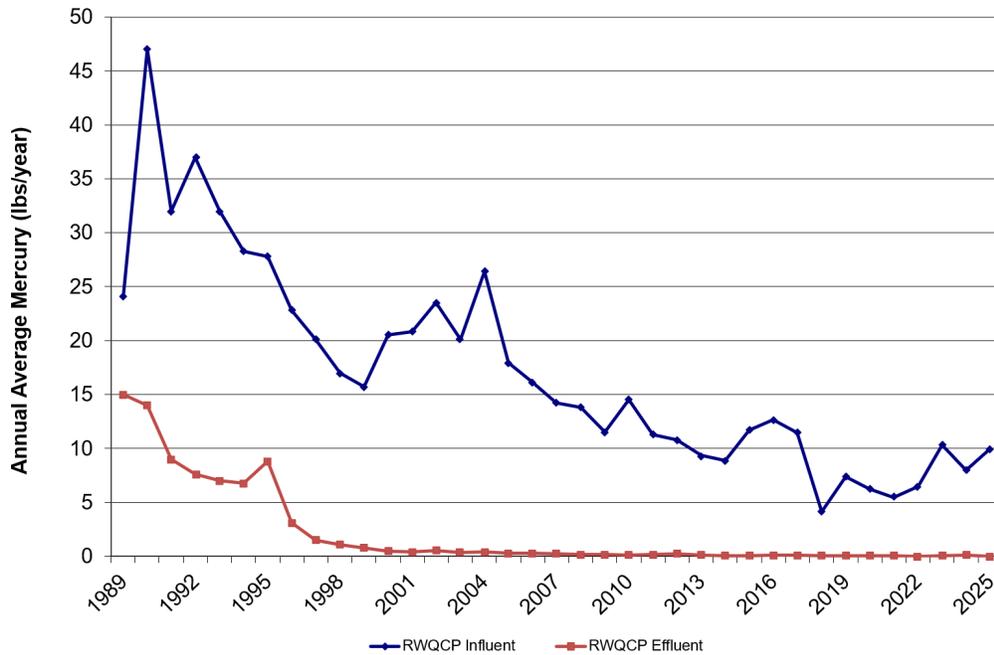


Figure 7. RWQCP Mercury Influent and Effluent Loading: 1989-2025

Figure 7 presents the annual mercury mass loadings in the RWQCP’s influent and effluent from 1989 through 2025. Influent and effluent mercury mass loadings decreased steadily from 1990 until 1999 when effluent loadings reached a low plateau.

2. Program Summary, Accomplishments, and Future Plans

Table 8. Mercury and PCB Program Summary, Accomplishments and Future Plans

Mercury and Polychlorinated Biphenyls (PCBs)	
Relevant Permit	Regional Water Quality Control Plant’s (RWQCP) Mercury and PCB Watershed National Pollutant Discharge Elimination System (NPDES) permit (Order No. R2-2023-0038, NPDES No. CA0038873)
2025 Highlights	<ul style="list-style-type: none"> Adopted the updated Sewer Use Ordinance to maintain consistency with pretreatment standards for industrial sources and dental offices Conducted inspections of 29 dental offices, with no major findings (100% of inspected offices in compliance)

	<ul style="list-style-type: none"> • The 2025 mercury influent concentrations remained below detection limits and load estimates increased by 25% reflecting a significant increase in the detection limit for mercury that offset the 10% reduction in flows between 2025 and 2024. • Collected and recycled mercury and PCB-containing wastes through the City and County Household Hazardous Waste Programs • Outreach highlights are described in Section IV.
2026 Main Goals	<ul style="list-style-type: none"> • Continue to track new dental offices and annually inspect approximately 20% of offices in the service area • Continued education of dental students on mercury pollution prevention via BAPPG • Continued administration of City HHW Program and partnership with County Program
Program Evaluation Metrics	<ul style="list-style-type: none"> • Percentage of dental offices in compliance with amalgam separator maintenance and best management practices (BMPs) • Percent change of treatment plant mercury influent concentrations and loads • Quantity of mercury containing waste collected through HHW events • Compliance with Hg/PCB Watershed Permit (as reported in Annual NPDES Report)

F. Salinity

1. Pollutant Background

Wastewater contains dissolved salts, or salinity, for which total dissolved solids (TDS) is a surrogate parameter. Salinity sources to the treatment plant are mainly from human waste and from saline groundwater infiltration into broken and aging sewer pipelines.

Elevated salinity in wastewater is largely an issue because it impacts the quality of the recycled water that the RWQCP generates. Recycled water is a safe, environmentally sustainable alternative to potable (drinking) water for non-potable applications like landscape irrigation and industrial uses. At elevated levels, salinity can negatively impact salt-sensitive vegetation as well as limit the use of recycled water in industrial cooling towers.

2. Program Summary, Accomplishments, and Future Plans

In addition to permitted requirements, the City of Palo Alto adopted a Recycled Water Salinity Reduction Policy in 2010 with the goal of reducing salinity below 600 milligrams per liter (mg/L) of total dissolved solids (TDS).

Table 9. Salinity Reduction Program Summary, Accomplishments, and Future Plans

Salinity	
Relevant Permit	Regional Water Quality Control Plant’s (RWQCP) Water Reclamation Requirements (Order No. 93-160)
2025 Highlights	<ul style="list-style-type: none"> The RWQCP produced 248 million gallons of recycled water, a 3 percent decrease from the previous year (Figure II.D-1). RWQCP staff conducted 7 inspections in 2025 and observed no major findings. Refer to the <i>2025 Annual Recycled Water Report</i> for further information. Recycled water TDS concentrations increased by 2.5% from 759 mg/L to 777 mg/L when compared to the previous year. Completed about 2,400 feet of the 72-inch joint intercepting sewer relining project (Phase I) that is expected to reduce groundwater infiltration and associated high TDS entering the RWQCP. RWQCP began construction on a Local Advanced Water Purification System (LAWPS) which will reduce TDS in recycled water to meet the City-wide goal
2026 Main Goals	<ul style="list-style-type: none"> Plan for expansion of Recycled Water Program Transition from Order 93-160 to the Statewide General Order Continue construction of LAWPS with a target completion date of 2028 Continue to promote and run the RWQCP Recycled Water Program
Program Evaluation Metrics	<ul style="list-style-type: none"> Percent change in the amount of total recycled water used compared to previous year Percent change of recycled water TDS concentrations compared to previous year Quantity of collection system pipelines that are replaced or relined to reduce inflow and infiltration

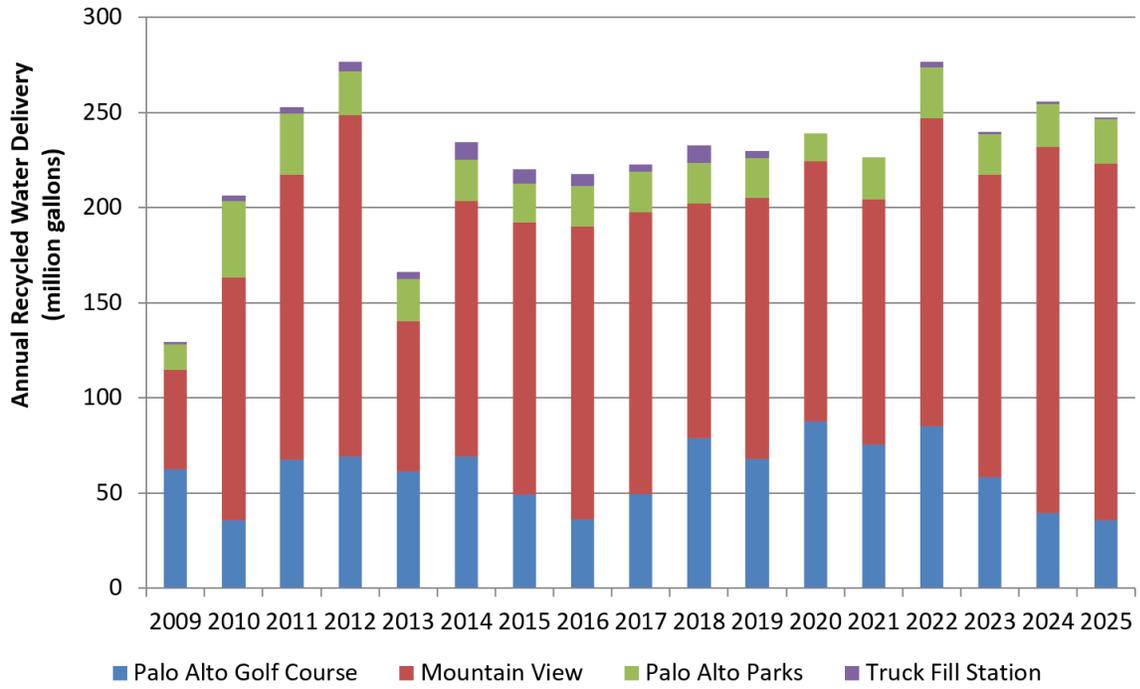


Figure 8. Historical RWQCP Recycled Water Use: 2009-2025



III. Contaminants of Emerging Concern

Tens of thousands of chemicals are registered for production and used worldwide. Many are considered contaminants of emerging concern (CECs). The San Francisco Estuary Institute (SFEI) defines CECs as chemicals that are un- or under-regulated, not commonly monitored in the environment, and have the potential to enter the environment and harm people or wildlife.

While CECs are not regulated by the San Francisco Bay Regional Water Quality Control Board (Regional Board), the Regional Board is concerned with emerging contaminants entering local waterbodies and recycled water.

When present in aquatic ecosystems, CECs may pose a direct risk to aquatic organisms and ecosystem health or an indirect risk to human health due to bioaccumulation in fish and shellfish that might later be consumed. CEC detection is increasing in urban water bodies such as the San Francisco Bay. Understanding the CECs that the RWQCP discharges into the Bay is the first step towards identifying source control measures that protect aquatic organisms.

The RWQCP participates in the Regional Monitoring Program (RMP). The RMP conducts research on emerging contaminants, analyzes potential risks to San Francisco Bay from CECs, and has developed a management strategy. A summary of RMP's priority pollutants that are relevant to RWQCP, their management options, and future monitoring recommendations are included in Table 10.

Table 10. Tiers, Management, and Monitoring for Emerging Pollutants of Concern

Tier	Contaminant	Management	Monitoring
Low Concern	<ul style="list-style-type: none"> Pharmaceuticals Pesticides (pyrethroids) 	<ul style="list-style-type: none"> Low-cost source identification and control Low level pollution prevention Track product use and market trends 	<ul style="list-style-type: none"> Conduct periodic screening in water, sediment, or biota, or discontinue monitoring Periodic screening in wastewater or urban runoff to track trends
Moderate Concern	<ul style="list-style-type: none"> Pesticides (Fipronil and imidacloprid) Microplastics 	<ul style="list-style-type: none"> Action plan/strategy Moderate pollution prevention Cost-effective control/treatment actions Track product use and market trends 	<ul style="list-style-type: none"> Consider including in Status and Trends monitoring Consider special studies of sources, pathways, and loadings to inform potential management actions Consider special studies on fate and/or effects to confirm tier classification
High Concern	<ul style="list-style-type: none"> Per- and Polyfluoroalkyl Substances (PFAS) 	<ul style="list-style-type: none"> Prioritize action plan/strategy Aggressive pollution prevention Cost-effective control/treatment actions Track product use and market trends 	<ul style="list-style-type: none"> Include in Status and Trends monitoring Prioritize special studies on sources, pathways, and loadings to inform potential management actions Consider special studies on fate and/or effects to confirm tier classification

RWQCP also serves as a member of the Pesticides Workgroup for the Bay Area Clean Water Agencies (BACWA). The workgroup addresses pesticide pollution by engaging in pesticide registration reviews by both the US Environmental Protection Agency (USEPA) and

Department of Pesticide Regulation (DPR). Palo Alto has been a regional co-leader addressing the issue of pesticides in pet flea and tick treatments for many years.

A. Pollutants Overview

The RWQCP addresses these broad range of CECs through outreach, public education, and collaborative initiatives with other agencies and/or partners.

1. Pharmaceuticals

Pharmaceuticals encompass a range of chemical compounds that are used in the medical treatment of people and pets. They enter wastewater primarily through excretion and through improper disposal of medications down the toilet or drain.

The RWQCP historically ran a pharmaceutical collection box onsite from 2002 to 2019. This program was phased out after the County of Santa Clara (with local support) passed a Safe Drug Disposal Ordinance requiring the pharmaceutical industry to fund and create a medication take-back program (MED-Project).



Med-Project has provided pharmaceutical collection services for the RWQCP service area since 2017. Collection kiosks are provided at retail pharmacies, hospitals, clinics, and law enforcement agencies. The RWQCP continues to provide outreach support to this program through advertisements, website promotion, utility bill inserts, and other printed materials.

The City of Palo Alto and Santa Clara County continue to collect expired and unused medications through their Household Hazardous Waste Programs.

2. Pesticides

Pesticides are chemicals used to control, deter or eliminate pests, including arthropods, rodents, weeds, fungi, and algae. Pesticides of concern are those that exhibit aquatic toxicity and persist in the environment, including carbendazim, fipronil, imidacloprid, and pyrethroids.

Scientific studies^{1 2 3 4 5} find that indoor pesticides such as foggers, sprays and topical treatments are transferred onto human hands, clothing, bedding, and other indoor surfaces. This pesticide transport exposes people to toxic pesticides and results in their ultimate discharge into the sewer system. Wastewater treatment processes are not designed to remove pesticides which pass through treatment and to the San Francisco Bay.

An emerging focus for the past five years is pesticides in flea and tick treatments for pets. Fipronil, imidacloprid, indoxacarb and pyrethroids (e.g., bifenthrin, deltamethrin, permethrin) are broad spectrum insecticides that pose concern due to increased urban uses and their detection in wastewater, Bay sediment and urban creeks.

3. Other Household Hazardous Wastes

Household Hazardous Wastes (HHW) includes products like paint, pesticides, cleaners, oils, batteries and other household chemicals that require special care for disposal. They can cause environmental harm if disposed of in the landfill or down the drain.

Several options are available for residents and businesses in the RWQCP service area to safely dispose of household hazardous waste. These include:

- **County HHW Programs:** Santa Clara and San Mateo Counties both operate HHW drop off programs serving residents and businesses in their respective counties. The San Mateo County program serves the East Palo Alto Sanitary District, while the Santa Clara County program serves Los Altos, Los Altos Hills, Mountain View, and Stanford. The Santa Clara County program does not serve Palo Alto residents because the City of Palo Alto funds its own HHW program.

¹ Litchfield et al., “Safety Evaluation of Permethrin and Indoxacarb in Dogs Topically Exposed to Activyl® Tick Plus,” *Journal of Veterinary Science and Technology* 2015, 6:2 <http://dx.doi.org/10.4172/2157-7579.1000218>.

² Bigelow Dyk, M., et al. (2012) Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, *Journal of Environmental Science and Health, Part B Pesticides, Food Contaminants, and Agricultural Wastes*, 47(10): 913-924. <https://doi.org/10.1080/03601234.2012.706548>

³ Keenan, James J., John H. Ross, Vincent Sell, Helen M. Vega, Robert I. Krieger, “Deposition and spatial distribution of insecticides following fogger, perimeter sprays, spot sprays, and crack-and-crevice applications for treatment and control of indoor pests,” *Regulatory Toxicology and Pharmacology* 58 (2010) 189–195.

⁴ Ross, J., T. Thongsinthusak, H.R. Fong, S. Margetich, R. Krieger, California Department of Food and Agriculture, “Measuring Potential Dermal Transfer of Surface Pesticide Residue Generated from Indoor Fogger Use: An Interim Report,” *Chemosphere*, Vol.20, Nos.3/4, pp 349-360, 1990.

⁵ “Assessing Intermittent Pesticide Exposure From Flea Control Collars Containing the Organophosphorus Insecticide Tetrachlorvinphos,” Davis, M., et al., *J. of Exposure Science and Environ. Epidemiology*, 2008, Vol. 18, pp 564-570.

- **City of Palo Alto HHW Program:** Drop-off events for Palo Alto residents occur every Saturday and on the first Friday of the month at the HHW Station, located at the entrance to the wastewater treatment plant. Businesses and non-profit organizations located in the RWQCP service area that generate less than 220 pounds of hazardous waste per month can participate in Palo Alto's Very Small Quantity Generator (VSQG) Program. From July 2024 – June 2025 the Palo Alto program collected over 115 tons of hazardous waste from its residents and service area businesses.



- **Curbside Collection:** Several jurisdictions within the service area offer limited residential curbside collection of HHW including batteries, electronic waste, used oil and oil filters.

4. Microplastics

Microplastics are plastic particles smaller than 5mm. Microplastics enter wastewater from the breakdown of fibers from synthetic clothing during laundering, from flushable wipes, and from the use of cosmetics that contain microbeads. While California's Plastic Microbeads Ban (AB 888 passed in 2015 and went into effect January 1, 2020) removed microbeads from rinse-off personal care products, they are still allowed in certain cosmetics and cleaning products today.

5. Per- and Polyfluoroalkyl Substances (PFAS)

Known as "forever chemicals," PFAS are a family of chemicals found in consumer and industrial products, including non-stick coatings, waterproofing materials, and manufacturing additives. They are highly persistent and take years to degrade naturally in the environment. Scientific studies have shown that exposure to PFAS chemicals is harmful to human and animal health. Perfluoro-octane sulfonic acid (PFOS) and perfluoro-octanoic acid (PFOA) are PFAS chemicals that have been widely used and therefore are often studied. There are currently no California PFAS limits for wastewater.

PFAS in biosolids are also of concern because biosolids may be used as an agricultural soil amendment. Many states have set PFAS limits for biosolids that either ban their use as a fertilizer or require additional source control. California currently has no PFAS limits for biosolids. However, PFAS levels monitored in the RWQCP biosolids are below the lowest

limits set by Michigan, New York, Wisconsin, and Colorado.

B. Addressing Contaminants of Emerging Concern

The RWQCP addresses these pollutants by participating in regional monitoring opportunities when available, tracking regulations and through its pollution prevention outreach, education and collection programs.

1. Accomplishments and Future Plans

Table 11. CEC Pollution Prevention Efforts

CEC Pollution Prevention Efforts	
2025 Highlights	<ul style="list-style-type: none"> Continued progress in biosolids disposal plan updates that is using destruction of CECs, such as PFAS, as an evaluation criteria in the ongoing Long-Range Facilities Plan Update Project Outreach to residents about proper medication disposal, less toxic pest management, household hazardous waste disposal options (see Section IV Outreach) Continued collection of household hazardous wastes and pharmaceuticals through County and City collection programs Continued partnerships with local animal shelters on alternatives to topical flea and tick treatment Continued participation in BACWA’s pesticide workgroup
2026 Main Goals	<ul style="list-style-type: none"> Completion of biosolids disposal plan update Continue to partner with DPR via BAPPG and BACWA to urge EPA to incorporate indoor uses in the re-registration of pesticides Continue to provide staff to support the BACWA Pesticides Workgroup Explore expanding the PIN model to another veterinary office or business chain, possibly in partnership with other BACWA agencies Completion of a veterinary journal article for publication consideration about pet flea/tick issues via its consultant who also serves as the main consultant for the BACWA Pesticide subcommittee



IV. Outreach

A. Program Overview



The RWQCP provides public outreach to promote water pollution prevention best practices in residential, business, school and other target communities, and to share how daily activities at home, work or school can protect the Bay.

Outreach activities include community events, school outreach programs, and education campaigns. They may include best practices that address multiple pollutants (e.g., household hazardous waste and pharmaceutical disposal), stormwater pollution prevention, and topics related to local watershed protection and enhancement, such as the expansion of recycled water services.

B. School Programs

The RWQCP has provided elementary and middle school classroom programs within its service area since 2000. This program historically reached more than 3,400 students annually. The COVID pandemic required the program to pivot to distance-learning science curriculum. In 2024 and 2025 the school outreach program was revitalized with new partners.

The program offers hands-on classroom lessons for elementary and middle schools and a field trip for 4th graders. All lessons meet Next Generation Science Standards. It also offers field trips to the RWQCP for middle schools, high schools, and colleges. Additional details about the programs, downloadable lessons, and other educator resources can be found at paloalto.gov/wastewatertreatment-schools.

1. Elementary school: Partnership with Palo Alto Junior Museum & Zoo



In the 2024-25 school year, the in-person elementary school lessons were relaunched through a new partnership with the [Palo Alto Junior Museum & Zoo \(JMZ\)](#). During this pilot year, the JMZ offered two 5th grade lessons, *Water Pollution* and *Water Filtration*, which are offered consecutively. Thirty-six lessons were delivered to 600 students within the RWQCP service area, with approximately half of those students receiving two

lessons. The JMZ also developed and tested a Watershed Protection field trip for 4th graders to the Baylands Open Space Preserve where the RWQCP is located. Activities focus on watersheds, wastewater treatment, pollution prevention, and water quality testing. The pilot field trip served 48 students and provided valuable feedback.

For the 2025-26 school year, the JMZ partnership continues and is on track to provide 50 lessons and 8 field trips to schools within the RWQCP service area. The RWQCP is also piloting a free bus program for field trips because transportation costs are a significant barrier to participation. These are for schools with at least 60% of their population designated as socioeconomically disadvantaged. Two schools in East Palo Alto have used this program to date, which enabled their participation.



In addition, RWQCP staff attended seven JMZ summer Bay Camps. They led walks to the RWQCP outfall pipe and discussed wastewater treatment and pollution prevention. These lessons served 130 campers (K-6th grades).

2. Middle school: Partnership with Marine Science Institute



In 2025, the RWQCP secured a three-year contract with the [Marine Science Institute](#) (MSI) to provide a classroom microscope lab to 7th graders, called *Microbes in Sewage*. Students identify microbes in activated sludge and learn about their role in wastewater treatment. They also discuss sanitary versus storm drain systems and water pollution prevention. For the 2025-26 school year, MSI will deliver 35 lessons.

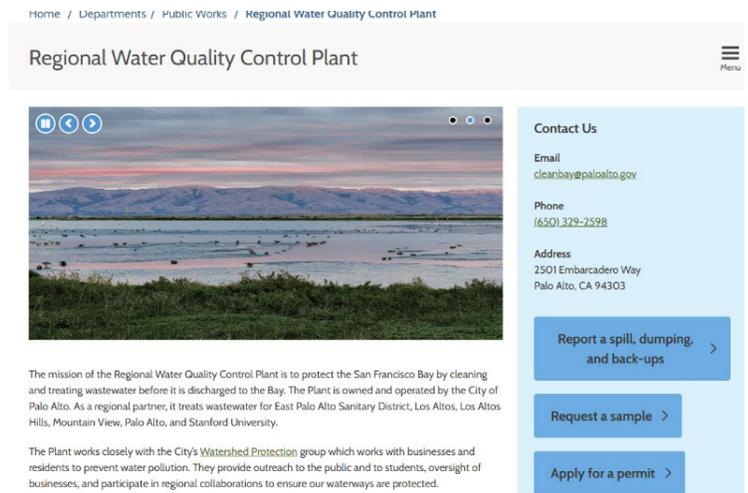
3. School field trips to tour the Regional Water Quality Control Plant

In 2025, the RWQCP redeveloped its plant tour program, which had been paused due to the COVID pandemic. We piloted four field trips for schools that served 53 students ranging from middle school to college. In 2026, we will determine how best to market the tours and tailor them to work with school schedules. As with the Baylands Field trips, we are also offering free bus transportation as needed for the field trips. See Section C.2 on public tours of the RWQCP for more tour specifics.

C. Residential and Business Outreach

1. Regional Water Quality Control Plant Website

The RWQCP website provides pollution prevention and watershed protection information for residents, businesses, industry, and schools. The site features a video of the RWQCP wastewater treatment process, information on pollution prevention and best management practices, and details on who to call for illegal spills and hazardous waste disposal. In 2025, staff migrated the site from CleanBay.org to the City of Palo Alto website (PaloAlto.gov/WastewaterTreatment) and included additional content on pollution prevention and RWQCP capital improvement projects.



2. Public tours of Regional Water Quality Control Plant



Tours for the public were on pause due to the COVID pandemic and were relaunched in 2025 with significant improvements. Eighteen tours were conducted and served 112 members of the public (not including students). Attendees were residents, employees, dignitaries and professional colleagues. Topics focused on the wastewater treatment process, recycled water, biosolids, and pollution prevention messages.

New resources were developed, including a tour script, an introductory PowerPoint, visual aids during the tour, a liability waiver, and Standard Operating Procedures for staff. Audio equipment was purchased so participants can hear tour guides in the loud environment.

In 2026, tours will be offered monthly for the public. Marketing and registration will be streamlined for staff, a pre- and post-survey will be developed, and additional staff will be trained to give tours.

3. Special Events and Workshops

In 2025, RWQCP staff attended two public events to conduct outreach: the Earth Day Festival and City Services or “MSC” Day. Table topics at the events included stormwater rebates, sewer backups, what not to flush, pesticides and integrated pest management, and stormwater best management practices for residents. Approximately 400 people visited RWQCP outreach tables.

Staff also presented at a Career Speaker Series about careers in the wastewater industry to 30 high school students.



4. Horizontal Levee Pilot Project Public Outreach

Located in the Palo Alto Baylands, the Palo Alto Horizontal Levee Pilot Project is the first horizontal levee to be built in the San Francisco Bay that beneficially reuses treated wastewater for irrigation. The nature-based solution will provide polishing treatment to the treated wastewater while also helping to address rising sea levels. Construction on the levee began in September 2025 and is expected to be completed in 2026. The RWQCP held and facilitated multiple outreach opportunities on wastewater treatment and sea level rise adaptation in 2025:

- RWQCP staff participated in three webinars about the Horizontal Levee which included more than 150 attendees of the public and environmental industry professionals.
- Transforming Shorelines Collaborative led an event for industry professionals. It included a presentation and tour of the levee under construction.
- Save the Bay led three community planting events to install native plantings on the levee in anticipation of opening; 90 community volunteers attended.
- Nuestra Casa led two community bioblitz events to provide community science opportunities; 28 community volunteers attended.
- There are two photo monitoring stations installed at the project site for visitors to the Baylands to capture images of the site for a project timeline.
- The RWQCP completed the design of three interpretive signs for the project, including one that was produced in collaboration with the Association of Ramaytush Ohlone.
- The Horizontal Levee was featured in a Utility Bill Insert that explained nature-based solutions alongside other case studies.
- A blog about the Horizontal Levee's construction was shared via the City e-newsletter and the project webpage was refreshed.
- A media tour was held in December with an accompanying press release. The event was well attended and resulted in many TV and online stories.



5. Utility bill inserts, utility announcements, and other print media

Palo Alto residents received twelve utility bill inserts in 2025 related to watershed protection. Palo Alto businesses received five utility bill inserts. Topics included:

- alternatives to flea and tick pesticide treatments;
- pharmaceutical and hazardous waste disposal;
- updates to sewer use ordinances;
- what not to flush down drains and toilets;
- stormwater tips;
- proper pool drainage;
- ant control without pesticides;
- stormwater best management practices for businesses;
- nature-based solutions;
- stormwater rebates;
- fats, oil and grease (FOG); and
- king tides (envisioning sea level rise).

In addition, utility announcements (short messages printed on the top of the utility bills) ran monthly. Utility bills and inserts reach 26,000 residents each month. See [Appendix F](#) to view these materials. New outreach options will need to be explored in the year ahead with upcoming changes to the utility bill program.

6. Pesticide outreach

In 2025, the RWQCP:

- Ran two utility bill inserts with alternatives to pesticide use and integrated pest management information;
- Provided pest management advice to City employees along with residents who reached out to the City for community assistance;
- Participated in the Our Water, Our World Program as detailed below; and
- Continued outreach about pesticides in flea and tick treatments and actively supported efforts by the BAPPG Pesticides Workgroup to address reduction of those pesticides.

Our Water, Our World Program

The RWQCP participates in the regional *Our Water, Our World (OWOW)* program, along with other local water pollution prevention agencies, to protect local creeks and the San

Francisco Bay from pesticide pollution. OWOW supports municipal agencies by educating the public on less toxic pest control at retail garden centers and hardware supply stores. Six retail stores within the RWQCP service area participate in the OWOW program by carrying factsheets, educating store employees, and providing shelf tags to guide consumers to less toxic products. The RWQCP continues to contribute to the program through both monetary and staff support, along with updating the RWQCP website with current program details.

Pet Flea and Tick Treatment

RWQCP has conducted focused outreach on Topical Flea and Tick Treatment pesticide concerns and encourages the use of chewable medications as an alternative where feasible. In 2025, the following efforts were accomplished:

- A utility bill insert was sent to residents that focused on alternatives to flea and tick pesticide products.

- RWQCP continued its support of the nonprofit, Pets in Need (PIN), with whom the City contracts to operate the Palo Alto Animal Shelter. They provided rack cards to be displayed at Palo Alto and Redwood City PIN facilities and placed in adoption folders. These rack cards, in both English and Spanish, educate vets and pet owners on flea and tick prevention and alternatives. PIN continues to avoid use of fipronil products and instead uses a non-priority topical treatment (Bravecto) on their shelter animals.



- Staff continued partnering with BACWA's BAPPG Pesticides Workgroup on this issue and made progress in 2025 as described below:
 - The Workgroup communicates with regulatory agencies and state partners about the hazard and exposure pathways of indoor and on-pet parasiticides and challenges identified by the vet community. They also offer support for DPR's re-registration process for fipronil. BACWA submitted a proposal for a Sustainable Pest Management grant to DPR to gather feedback from the vet community on this issue (award decision not made yet). In 2026, they will continue to seek opportunities to collaborate and pilot projects with DPR.

- The Workgroup continued sharing information with American Veterinarian Medical Association (AVMA) and its Committee on Environmental Issues (CEI). The RWQCP is funding an article summarizing the results of a wide-reaching survey of veterinarians on the issue. In 2026, they will co-lead a workshop at the AVMA Convention with Dr. Jane Sykes, a vet specializing in parasiticides and a member of AVMA’s CEI.
- The Workgroup gave a well-attended presentation at California Water Environment Association (CWEA) P3S in February 2025 called “*Protecting POTWs from Pet Pesticides.*” They also presented to the BAPPG in January 2025, updating members on the 2024 activities and proposing a regional workplan for continued and coordinated outreach. The proposed workplan is based on the tools and insights developed by RWQCP and the results of the vet survey and communications with vets in 2024 via AVMA.

7. Fats, Oil and Grease (FOG)

City staff promoted proper disposal of kitchen Fats, Oil and Grease (FOG) in November through a utility bill insert, a paid advertisement in the local paper, and a utility community announcement for both residents and businesses. The RWQCP also participated in additional FOG outreach through BAPPG.

8. New Outreach Material for Businesses

In 2025, the RWQCP staff created three new outreach flyers for businesses. These include art studios, laboratories and machine shops. The flyers are available on our website for download at paloalto.gov/wastewatertreatment-businesses.

Additionally, the RWQCP conducted business outreach associated with the October 2025 updates to its Sewer Use and Stormwater Ordinances (Palo Alto Municipal Code, Chapters 16.09 and 16.11). The City sent utility flyers and multiple newsletter notifications to businesses to communicate the upcoming changes and held 6 public comment meetings prior to approval by City Council. In 2026 the RWQCP plans to continue outreach to the business community by publishing a FOG website for businesses covering topics such as grease control device requirements for installation and maintenance, and new waste cooking oil storage requirements.

D. Employee Outreach

RWQCP staff attended conferences, webinars and workshops to continue education on pollutants and potential sources through BACWA, BAPPG, CWEA, CalEPA, and a BAYWORK “Workshop on Wheels” tour of five treatment plants on the peninsula.

Employee outreach was conducted internally through presentations at monthly staff meetings. Topics included coordination and improvements to the Pretreatment and FOG Programs, legacy monitoring programs, the nutrient watershed permit, demonstrations of community outreach materials, and horizontal levee pilot project development. New RWQCP employees received plant tours focused on the wastewater treatment process and pollution prevention.

In 2025, after the new main NPDES permit was issued, the Regulatory Compliance Team trained all RWQCP staff on NPDES and other plant permit requirements. Staff also received quarterly Sustainability newsletters with updates on RWQCP projects, upcoming virtual meetings, and plant processes.

APPENDIX A: POLLUTANT PROGRAM SUMMARY AND ACCOMPLISHMENTS

This table is not comprehensive of all pollution prevention or sustainability programs that the RWQCP leads. See report sections for more information.

Pollutant of Concern	Source(s) to Sanitary Sewer	2025 Highlights	2025 Outreach Highlights	2026 Main Goals	Program Evaluation Metrics
Main NPDES Permit					
Copper	<ul style="list-style-type: none"> Plumbing Industrial processes (a wide range of processes including research & development laboratories, cooling towers, and medical facilities) Pesticides and algaecides 	<ul style="list-style-type: none"> Adopted and conducted outreach on the updated Sewer Use Ordinance as it concerns industrial discharges, pool draining, and prohibited pool chemicals Permitted large industrial sources of copper and restricted their discharge per the Sewer Use Ordinance Conducted routine surveillance sampling of sewer trunklines 	<ul style="list-style-type: none"> Outreach on pool maintenance and draining, including a utility bill insert and information on the website 	<ul style="list-style-type: none"> Continue to monitor industrial discharges of copper 	<ul style="list-style-type: none"> Percentage of industrial dischargers in compliance with Sewer Use Ordinance Percent change of treatment plant influent copper concentrations and loads
Cyanide	<ul style="list-style-type: none"> Industrial processes (such as metal finishing or semi-conductor manufacturing) 	<ul style="list-style-type: none"> Adopted the updated Sewer Use Ordinance and conducted outreach to industrial dischargers Permitted industrial sources of cyanide and restricted their discharge per the Sewer Use Ordinance Conducted routine surveillance sampling of sewer trunklines No significant cyanide discharge occurred in 2025 as defined by the main NPDES permit. 	<ul style="list-style-type: none"> Reviewed current BMPs for industrial dischargers that use CN in preparation for creation of a factsheet 	<ul style="list-style-type: none"> Continue to monitor industrial discharges of cyanide Create a CN control factsheet and distribute to industrial dischargers 	<ul style="list-style-type: none"> Percentage of industrial dischargers in compliance with Sewer Use Ordinance Percent change of treatment plant influent cyanide concentrations and loads
Fats, Oils and Grease (FOG)	<ul style="list-style-type: none"> Grease from food preparation at residences and businesses 	<ul style="list-style-type: none"> Updated Sewer Use Ordinance, adding FOG in its own section and maintaining consistency with new regulatory standards The new ordinance is aimed at reducing the bypass of FOG by incorporating new technologies and practices at food facilities Reviewed plan sets for compliance with FOG pollution prevention and best management practices, such as grease control devices, etc. Continued inspections of food facilities for FOG requirement compliance Enrolled grease waste haulers in digital reporting system to allow for compliance tracking of GCD maintenance 	<ul style="list-style-type: none"> Utility bill inserts with FOG disposal information ran in November prior to the holidays Utility bill insert with information on public meetings for FOG ordinance update Distributed factsheets to food facilities that included best practices to manage FOG and maintain grease control devices. This information is available on the City's website 	<ul style="list-style-type: none"> Inspect one-third of Palo Alto food facilities Conduct plan checks for new or remodeled food facilities to ensure grease control devices are installed properly Publish new FOG website as a resource for food facilities 	<ul style="list-style-type: none"> Number of restaurants inspected; percent compliance with ordinance requirements Number of plan checks Number of sanitary sewer overflows related to FOG

APPENDIX A: POLLUTANT PROGRAM SUMMARY AND ACCOMPLISHMENTS

Pollutant of Concern	Source(s) to Sanitary Sewer	2025 Highlights	2025 Outreach Highlights	2026 Main Goals	Program Evaluation Metrics
Mercury and PCB Watershed NPDES Permit					
Mercury	<ul style="list-style-type: none"> Dental offices: Scrap amalgam, chair-side trap waste, filter waste, and amalgam sludge Improper disposal of mercury-containing wastes (e.g. from thermostats, thermometers, fluorescent bulbs, and novelties) 	<ul style="list-style-type: none"> Conducted inspections of 29 dental offices, with no major findings Updated Sewer Use Ordinance to maintain consistency with pretreatment standards for dental offices Collected and recycled mercury containing waste through the City and County Household Hazardous Waste (HHW) Programs 	<ul style="list-style-type: none"> Discussed BMP implementation with dental offices that were inspected Outreach through HHW Program 	<ul style="list-style-type: none"> Continue to track new dental offices and annually inspect approximately 20% of offices in the service area Continued education of dental students on mercury pollution prevention via BAPPG Continued administration of City HHW Program and partnership with County Program 	<ul style="list-style-type: none"> Percentage of dental offices in compliance with amalgam separator maintenance and best management practices (BMPs) Percent change of treatment plant mercury influent concentrations and loads Quantity of mercury containing wastes collected through HHW events
Polychlorinated Biphenyls (PCBs)	<ul style="list-style-type: none"> Legacy contaminants from building materials, electrical utilities, and industrial sources (1950-1980) 	<ul style="list-style-type: none"> Continued implementation of the PCBs in Priority Building Materials Program Collected PCB-containing wastes through the City and County HHW Programs 	<ul style="list-style-type: none"> Outreach through HHW Program 	<ul style="list-style-type: none"> Continued permit compliance 	<ul style="list-style-type: none"> Compliance with Watershed Permit requirements and discharge limitations

¹Association of Bay Area Governments, *Bay Area Dioxins Project*, February 2004.

APPENDIX A: POLLUTANT PROGRAM SUMMARY AND ACCOMPLISHMENTS

Pollutant of Concern	Source(s) to Sanitary Sewer	2025 Highlights	2025 Outreach Highlights	2026 Main Goals	Program Evaluation Metrics
Recycled Water Permit					
Salinity	<ul style="list-style-type: none"> Human waste Inflow and infiltration of saline groundwater into the collection system 	<ul style="list-style-type: none"> The Local Advanced Water Purification System (salt removal) project broke ground Continued project to rehabilitate the 72-inch trunkline leading to the RWQCP 	<ul style="list-style-type: none"> Information on the plant's treatment processes and a recycled water web page are available at PaloAlto.gov/WastewaterTreatment and PaloAlto.gov/RecycledWater, respectively City of Palo Alto Utilities publishes an annual "Utilities at a Glance" report to its customers detailing information on the recycled water program and updates A poster showing treatment processes and recycled water uses is used when tabling at public events ("What Happens After It's Flushed?") 	<ul style="list-style-type: none"> Continue construction of the Local Advanced Water Purification System Complete rehabilitation of 72-inch trunkline 	<ul style="list-style-type: none"> Reduction of total dissolved solids concentrations in recycled water
Other Emerging Contaminants					
Pharmaceuticals and personal care products	<ul style="list-style-type: none"> Over-the-counter and prescribed medications Hospitals and other medical facilities Personal care products 	<ul style="list-style-type: none"> Continued agreement with MEDProject to provide pharmaceutical collection sites and mailback programs for expired or unwanted medications Continued collection of pharmaceuticals through the City and County Household Hazardous Waste Programs 	<ul style="list-style-type: none"> In addition to outreach provided by MedProject and through the HHW collection program, the RWQCP provides supplemental outreach by way of the RWQCP website, ad campaigns, and Utility Bill inserts to residents to "Dispose of Your Medicines and Sharps Safely" 	<ul style="list-style-type: none"> Continue public education campaigns about proper pharmaceutical disposal 	<ul style="list-style-type: none"> Amount of pharmaceuticals collected

APPENDIX A: POLLUTANT PROGRAM SUMMARY AND ACCOMPLISHMENTS

Pollutant of Concern	Source(s) to Sanitary Sewer	2025 Highlights	2025 Outreach Highlights	2026 Main Goals	Program Evaluation Metrics
Other Emerging Contaminants (continued)					
Pesticides (pyrethroids, fipronil, imidacloprid)	<ul style="list-style-type: none"> • Application in homes and businesses • Laundry, cleaning, and improper disposal 	<ul style="list-style-type: none"> • Continued regional collaboration, regulatory tracking and outreach through participation in BAPPG, BACWA Pesticides Subgroup, and Our Water Our World (OWOW) • Maintained 21 pesticide-free parks and facilities within Palo Alto • Continued co-funding consultant assistance in wastewater pesticide pollution sources and outreach 	<ul style="list-style-type: none"> • Print and electronic outreach on Integrated Pest Management (IPM) practices to manage common pests such as ants, flea/ticks, and rodents • Continued IPM outreach through the Countywide stormwater program, including point-of-sale educational materials and training programs for store employees 	<ul style="list-style-type: none"> • Continue participation in regional outreach and regulatory tracking and lobbying via BAPPG and BACWA Pesticides Subgroup • Continue to provide outreach on IPM Strategies and promote EcoWise Certified pest control companies 	<ul style="list-style-type: none"> • Correspondence with regulatory agencies via BAPPG and associated regulation changes • Number of stores participating in OWOW Program • Tracking of treatment plant pesticide data
Microplastics	<ul style="list-style-type: none"> • Laundry (synthetic fibers) • Personal care products • Breakdown of larger plastic items 	<ul style="list-style-type: none"> • The RWQCP has partnered with California State University Channel Islands to conduct a microplastics monitoring study as part of its Horizontal Levee Pilot Project 	<ul style="list-style-type: none"> • Utility Bill Insert "Toilets are not trash cans" indicating items such as wipes, diapers, menstrual products, dental floss, that should not be flushed to the sanitary sewer 	<ul style="list-style-type: none"> • Continue microplastics monitoring during and after the horizontal levee construction period 	<ul style="list-style-type: none"> • Concentrations of microplastics per study findings
Per- and Polyfluoro-alkyl substances (PFAS)	<ul style="list-style-type: none"> • Consumer products • Industrial processes such as manufacturers of organic, chemicals, plastics and synthetic fibers, semi-conductors, and metal finishers 	<ul style="list-style-type: none"> • Tracked and evaluated progression of PFAS regulations 	<ul style="list-style-type: none"> • Posted treatment plant-related content to webpage for enhanced community access 	<ul style="list-style-type: none"> • Continue monitoring of PFAS research and legislation • Continue to support and leverage regional outreach efforts and learn from other wastewater agencies on how best to conduct outreach 	<ul style="list-style-type: none"> • Compliance with regulatory actions • Continued participation in regional workgroups and studies

APPENDIX B: COPPER CONTINGENCY PLAN

CONTINGENCY ACTION	DISCHARGE REDUCTION
Add corrosion inhibitor to local drinking water supplies	Reduce copper piping corrosion by an estimated 30% if inhibitor addition was implemented in all SFPUC water supplies in the RWQCP service area
Create financial incentives for implementation of copper pollution prevention measures at private businesses, emphasizing measures for largest copper dischargers	Reduce copper wastewater discharge from industrial copper use, from cooling towers, and from circulating hot water systems. Some additional reductions in industrial process copper discharge (In 2002, about 5% of RWQCP influent copper), cooling water copper corrosion discharges (currently 3% of influent copper) and circulating hot water system discharges (which may be as much of 3% of influent copper) are possible
Advocate use of CPVC piping and/or restrict use of copper piping in new construction and remodeling	Reduce copper discharges from corrosion of copper piping. Rate of reduction is uncertain as the current pipe replacement rate in the service area is unknown. Since replacement rate is probably slow, significant reductions would probably not be achieved for 5 to 10 years
Implement regional training and certification program for plumbers. Require use of recommended fluxes and solders and adherence to IAPMO best management practices during all copper plumbing installation	Reduce copper discharges from corrosion of copper piping due to poor installation practices. The amount of reduction that would be achieved is unknown. Reduction would slowly increase as piping is replaced
Adopt copper pipe flow velocity restrictions as part of city building codes	Reduce copper discharges from corrosion and erosion of copper piping. The amount of discharge reduction is unknown, but could be measurable depending on current average flow velocities. Reduction would slowly phase in as piping is replaced
Recommend lower operating temperatures for home and business hot water systems (while maintaining user safety and sanitation)	Reduce copper discharges from corrosion of hot water piping (which occurs at an accelerated rate). The amount of discharge reduction is unknown
Prohibit installation of open cooling towers and prohibit towers with copper piping and parts	Reduce copper discharges from cooling towers (3% of RWQCP copper influent) as the restriction phased in. Preliminary data suggest that at least half of the cooling water systems in the service area are open systems or contain copper, and that copper discharge reductions of more than 50% are possible if such systems are replaced with copper-free closed systems
Expand wastewater recycling programs	Reduce the amount (but not the concentration) of copper discharged to San Francisco Bay by an amount proportional to the amount of wastewater diverted from Bay discharge
Investigate and consider implementing chemical addition to increase copper removal at the RWQCP	Increase copper removal efficiency at the RWQCP, decreasing copper discharge concentration. Copper discharge reduction (if any) is unknown. (Full-scale testing would be required to determine the potential reductions)
Expand water conservation education and incentive programs	Reduce copper discharges associated with water use, primarily from water supply and corrosion. The amount of reduction would be proportional to the decrease in indoor water use achieved

APPENDIX C: COPPER CONTROL PROGRAM

COPPER CONTROL PROGRAM ITEM NUMBER	ITEM DESCRIPTION	IMPLEMENTATION PLAN	IMPLEMENTATION DATE
i.	Provide education and outreach to the public (e.g., focus on proper pool and spa maintenance and plumbers' roles in reducing corrosion)	The RWQCP will conduct public outreach on pool and spa maintenance, and plumbers' roles in reducing corrosion, via a new web page on the baywise.org website. The RWQCP will continue to distribute the SCVURPPP pool brochure to residents upon request or in response to illicit discharges. The RWQCP will also participate in any copper public education and outreach efforts initiated by the Bay Area Pollution Prevention Group	7/1/2010 and ongoing
ii.	If corrosion is determined to be a significant copper source, work cooperatively with local water purveyors to reduce and control water corrosivity as appropriate, and ensure that local plumbing contractors implement best management practices to reduce corrosion in pipes	RWQCP staff has met with San Francisco Public Utilities Commission (SFPUC) staff to discuss SFPUC's corrosion control strategy, which was approved by the California Department of Public Health. RWQCP staff will continue to monitor influent copper concentration on a monthly basis to assess whether any significant increases in influent copper concentrations are caused by potable water corrosivity	Ongoing
iii.	Educate plumbers, designers, and maintenance contractors for pools and spas to encourage best management practices that minimize copper discharges	A detailed description of the RWQCP's efforts to educate plumbers and designers about best management practices to minimize copper is provided the 2016 Clean Bay Plan. This effort, which is now a regional program of BAPPG, was initiated by the RWQCP in 2001. RWQCP staff will continue to support BAPPG's efforts to reach plumbers' and designers' groups. An effort is also planned by BAPPG to work with the California State Licensing Board to direct plumbing contractors to the baywise.org website for information on copper corrosion	Ongoing

APPENDIX D: CYANIDE CONTROL PROGRAM IMPLEMENTATION PLAN

CYANIDE CONTROL PROGRAM ITEM NUMBER	ITEM DESCRIPTION	IMPLEMENTATION PLAN	IMPLEMENTATION DATE
i.	Inspect each potential cyanide contributing source to assess the need to include that contributing source in the control program	The following three facilities were identified as potential contributors of cyanide to the RWQCP: Microwave Power Products, Inc., and Hammon Plating Corporation. Each of these facilities were inspected by the RWQCP's Pretreatment Program, and all three are included in the cyanide control program	Complete
ii.	Inspect potential cyanide contributors included in the control program at least annually. Inspection elements may be based on USEPA guidance, such as Industrial User Inspection and Sampling Manual for POTWs	The potential cyanide contributors identified above will be inspected at least annually. Microwave Power Products, Inc., and Hammon Plating Corporation are typically inspected semiannually, with compliance monitoring, including cyanide analysis, conducted by the RWQCP	Ongoing
iii.	Develop and distribute educational materials to potential cyanide contributing sources regarding the need to prevent cyanide discharges	The RWQCP will utilize the educational materials developed by the Bay Area Pollution Prevention Group. Distribution of educational materials began in 2011. Pretreatment program inspectors regularly stress the importance of proper cyanide control during industrial facility inspections	Complete
iv.	Prepare an emergency monitoring and response plan to be implemented if a significant cyanide discharge occurs	The emergency monitoring and response plan is located in Appendix G	Complete
v.	If ambient monitoring shows cyanide concentrations of 1.0 µg/L or higher in the main body of the San Francisco Bay, undertake actions to identify and abate cyanide sources responsible for the elevated ambient concentrations	Monitoring of San Francisco Bay is conducted through the Regional Monitoring Program. The RWQCP will identify necessary actions if cyanide concentrations reach 1.0 µg/L or greater	On hold

APPENDIX E: CYANIDE EMERGENCY MONITORING AND RESPONSE PLAN



Public Works Department
Water Quality Control Plant

Environmental Compliance Division

Date: 08/13/10 (Updated 07/10/25)
To: File, Pollution Prevention Plan
From: Samantha Engelage, Pretreatment Program Manager
RE: Cyanide Emergency Monitoring and Response Plan

Influent and effluent monitoring are conducted per the requirements of the Palo Alto Regional Water Quality Control Plant's NPDES permit. This plan sets out sampling and investigative measures to be taken in any instance of Plant influent sampling analysis results that indicate a significant cyanide discharge is occurring per Table 6 of the NPDES Permit.

Case 1. Influent sample results greater than 10 ug/L CN

- a. Re-sample influent (grab) within 5 days of becoming aware of the laboratory results. If the follow-up sample also exceeds 10 ug/L, then a "significant cyanide discharge" is occurring and triggers Case 2 - surveillance monitoring and source evaluation.
- b. Contact each of the identified and potential cyanide contributors (IU dischargers); discuss any recent activities that could have caused a high value.
 - i. Hammon Plating Corporation
 - ii. Microwave Power Products
- c. Standard follow-up sampling and enforcement response will be implemented for non-compliant activities or IU discharges above the applicable Federal and/or local limits.

Case 2. Surveillance Monitoring and Source Evaluation (Follow-up Influent Sample Results Greater than 10 ug/L)

- d. Evaluate monthly Partner Agency trunk line data for potential source of CN increase. Collect grab samples (and consider investigative composite samples despite noncompliant with sample method) identified area suspected of CN source and try to identify source. If source identified, evaluate facility for permitting requirements and best management practices. If no source is identified, consider outreach efforts to identified area regarding CN BMPs.

All findings will be reported in the Pollution Prevention Report per Table 6 of the NPDES Permit.

APPENDIX F: PUBLIC EDUCATION MATERIALS

February 2025: Medicine & Needles Disposal UBI



DISPOSE OF MEDICINE AND NEEDLES **SAFELY**

Medicines and sharps (injection needles) should not go into your curbside collection carts, or down the sink or toilet. This includes pet medicines!

They can injure or poison pets and people when placed with your regular waste. When medicine is disposed of in the sink or toilet, it can pollute the San Francisco Bay.

Bring your medicine and needles to a safe disposal location – look for this bin at one of the convenient drop-off sites below!



Drop-Off Locations

- **CVS Pharmacy Locations**
2701 Middlefield Rd, Palo Alto
M-F: 8am–8pm
Sat: 10am–6pm
Sun: 10am–5pm
(650) 330-0132

352 University Ave, Palo Alto
M-F: 9am–7pm
Sat: 10am–6pm
Sun: 11am–5pm
(650) 324-3248
- **Household Hazardous Waste Station***
2501 Embarcadero Way, Palo Alto
Sat: 9am–11am
First Friday: 3pm–5pm
(650) 496-5910
*No drop-off box. Drop off medications directly to staff.
Visit cityofpaloalto.org/hazwaste for more information.*
- **Palo Alto Police Department***
Call for location and hours.
(650) 329-2406
- **Stanford Healthcare Pharmacy**
875 Blake Wilbur Dr, Palo Alto
M-F: 9am–5:30pm
(650) 736-3800
- **Walgreens #21141**
217 Alma Street, Palo Alto
M-F: 9am–5:30pm
Sat: 9am–1pm
(650) 326-3876
> Sharps only

**Does not accept controlled substances.*

For additional locations or free mailback options, visit med-project.org or call (650) 329-2122.



Individuals with disabilities who require accommodations to access City facilities, services or programs, or who would like information on the City's compliance with the Americans with Disabilities Act (ADA) of 1990, may contact the City's ADA Coordinator at (650) 329-2550 (voice) or email ada@cityofpaloalto.org.
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February 2025: Choose Chewables UBI

Prevent Fleas and Ticks

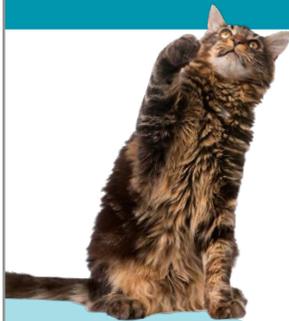
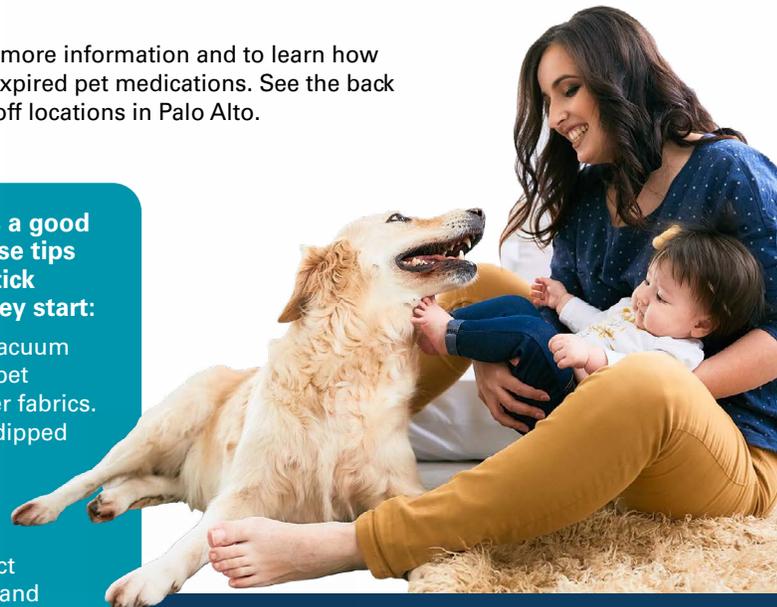
Ask your vet if chewable flea and tick medication is an option for your pet.

Chewable flea and tick medications may be a preferable alternative to topical treatments. Pesticides in spot-on treatments, collars, sprays, and foggers transfer onto you and indoor surfaces around your home. These products are a potential human health risk to adults and children. When washing pets, bedding, clothing, and your hands, these pesticides go down the drain and impact San Francisco Bay water quality.

Visit [baywise.org](https://www.baywise.org) for more information and to learn how to safely dispose of expired pet medications. See the back for medication drop-off locations in Palo Alto.

The best defense is a good offense. Follow these tips to reduce flea and tick problems before they start:

- **Fleas:** regularly vacuum floors, furniture, pet bedding and other fabrics. Use a flea comb dipped in soapy water to capture fleas.
- **Ticks:** regularly groom and inspect your pet for ticks and keep them out of tall grasses and shrubs.



To learn more about watershed protection, visit [cleanbay.org](https://www.cleanbay.org) or call 650.329.2122.

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REGIONAL
WATER QUALITY
CONTROL PLANT

March 2025: You are the Solution to Pollution UBI

You are the Solution to Pollution

Residents and businesses are the largest contributors of pollution to local creeks and San Francisco Bay. However, you can help prevent stormwater pollution by following these tips that create a big impact and protect waterways:



Sweep up fallen leaves and place them in your green compost cart instead of blowing them into the street.

When washing your car, use a commercial car wash to avoid creating polluted runoff.



Avoid spraying pesticides in or around your house. Check out the less-toxic pest management techniques found on ourwaterourworld.org.

Dispose of old paints, pesticides, cleaners, or other household hazardous waste at the City's Household Hazardous Waste Station. More info on cityofpaloalto.org/hazwaste.



Pick up litter when you see it. Keep lids closed on all waste containers to prevent litter.

Pick up pet waste, and dispose of it properly in the black landfill cart. Pet waste can carry harmful bacteria and pathogens into creeks.



Bring reusable checkout and produce bags to the grocery store to reduce waste and litter. More info on cityofpaloalto.org/zwliving.

Install a rain barrel, rain garden, or pervious pavement. These features enhance the beauty and water-efficiency of your landscape, collect rainwater for irrigation use, reduce moisture and ponding around building foundations, build resiliency against drought, and filter pollutants from stormwater runoff.



**Want to learn more pollution prevention tips and information?
Visit cityofpaloalto.org/watershed or call (650) 329-2122.**



March 2025: Toilets Aren't Trash Cans UBI

Toilets Aren't Trash Cans!



× **Diapers and Wipes**
(including baby wipes!)



× **Menstrual Products**



× **Dental Floss**

Do not flush hair, contact lenses, cotton pads or swabs, medication, cat litter, toilet roll tubes, cigarettes, cleaning chemicals, paints & pesticides; fats, oils, grease (FOG), razors, or anything else down the toilet. Flushing items other than human waste and toilet paper can cause sewer backups into homes and streets, and pollution into creeks and the San Francisco Bay.

ONLY flush the
**Three P's: Poop, Pee,
and Toilet Paper!**

Visit cleanbay.org or
call (650) 329-2122
for more information.



**REGIONAL
WATER QUALITY
CONTROL PLANT**

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May 2025: It's Almost Pool Season Drain Smart UBI



IT'S ALMOST POOL SEASON!

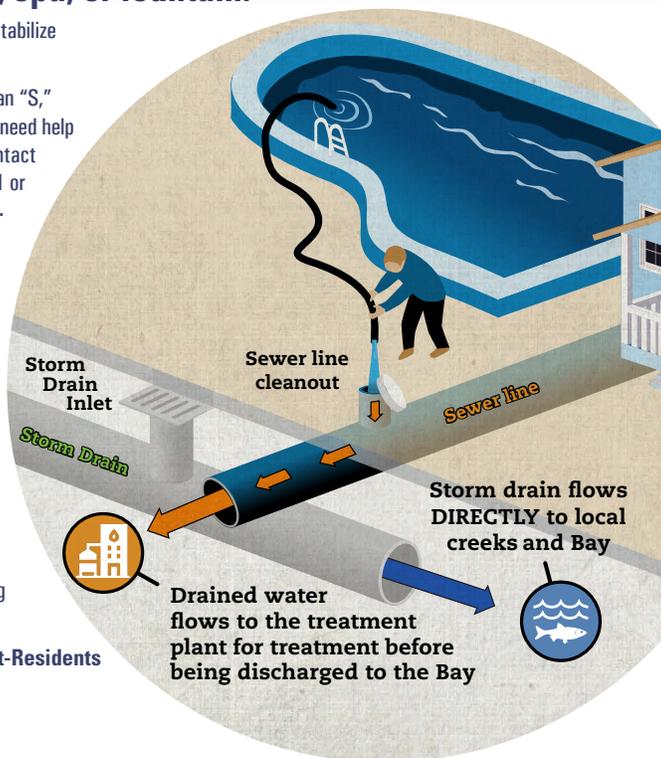
Warm weather is ahead, which means pool season is around the corner! If you need to drain your pool, spa, or fountain, **ONLY drain to your sanitary sewer line cleanout.** Draining to the street, sidewalk, or lawn could lead to copper, chlorine, and other chemicals ending up in creeks and the Bay where it can harm wildlife.

When draining your pool, spa, or fountain:

- To conserve water, only drain your pool to stabilize water hardness or make a repair.
- Look for your sewer cleanout marked with an "S," usually located in a landscaped area. If you need help locating your cleanout, call a plumber or contact City of Palo Alto Utilities at (650) 329-2161 or UtilitiesCustomerService@paloalto.gov.
- Use a garden hose to drain your pool, spa, or fountain into the cleanout.
- Clean filter with a hose and in an area that ensures no water enters any storm drains.
- To avoid sewer overflows, don't drain pools on rainy days and keep the flow rate slow, around 30 gallons per minute.

For pools larger than 20,000 gallons or to drain to a City manhole, contact the Regional Water Quality Control Plant at Pretreatment@paloalto.gov prior to draining to avoid a sewer backup.

Visit PaloAlto.gov/WastewaterTreatment-Residents for more information.



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June 2025: Ants and Pesticides UBI

PROBLEMS WITH ANTS?

MANAGE SEASONAL ANTS LIKE A PRO. (NO ANTEATER REQUIRED)

1 DON'T USE ANT SPRAYS.

Sprays expose your family to pesticides, and they are the top source of creek pesticide pollution in the Bay Area. They are also ineffective. Most of an ant colony is underground so a spray kills only 1% of the infestation.

2 REMOVE WHAT THEY'RE AFTER.

Clean up food and spills. Store food in sealed containers.

3 STOP THE TRAIL.

Spray lines of ants with soapy water and wipe up. This removes their scent trail.

4 CAULK HOLES AND CRACKS.

The most effective measure to ant-proof your home is applying diatomaceous earth in wall openings and cracks before permanently closing openings with silicone caulk.

5 CAN'T BLOCK OR FIND AN ENTRY POINT?

Place an ant bait station with borax (tetraborate decahydrate) or hydramethylnon on the trail the ants have been following. Resist killing the ants: they are carrying the bait back to their colony.

6 TOLERATE ANTS OUTSIDE WHEN YOU CAN.

Ants serve an important function in soil aeration and garden cleanup.

7 ANTS IN PET BOWL?

Partially fill a wide, shallow container with soapy water and place pet bowls in the water.

NEED EXPERT HELP?

Visit ourwaterourworld.org to find a store in your area that carries less-toxic solutions and for information on managing ants and other common pests.

Want to hire a service?

Visit mywatershedwatch.org for a pest control provider who understands how to safely stop reoccurring pest problems.

Learn more about pollution prevention at www.PaloAlto.gov/wastewatertreatment-residents
Questions? (650) 329-2122

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July 2025: Business Pollution Prevention UBI



Business activities, such as car washing, food preparation, trash disposal, animal care, cleaning, and maintenance can generate pollutants that go down sanitary or storm drains. That pollution can then find its way into creeks and the San Francisco Bay.



You can prevent pollution

Your business – small or large – can follow simple pollution prevention practices to keep our community clean and your business thriving.

Visit the websites below for guidance on regulations that are specific to your business.



Scan the QR code for Stormwater Pollution Prevention info.

PaloAlto.gov/Stormwater-Businesses



Scan the QR code for Wastewater Pollution Prevention info.

PaloAlto.gov/WastewaterTreatment-Businesses

(650) 329-2122 • CleanBay@PaloAlto.gov



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September 2025: Nature-Based Solutions UBI

From Bees to Baylands:

Nature-Based Solutions Build Healthy Cities

Nature-based solutions address environmental and societal challenges by working with nature and by using a variety of modern urban design approaches. From habitat restoration and water resource management to disaster risk reduction and green infrastructure, nature-based solutions provide essential benefits to people and the environment.

Check out these nature-based solutions in Palo Alto!

Stormwater Calming in Southgate

The Southgate neighborhood frequently experienced street flooding during storms. To address this, the City installed green stormwater infrastructure. The bioretention areas and pervious pavement slow and soak up rainwater – reducing flooding.



PaloAlto.gov/Southgate



PrimroseWayPollinatorGarden.com

A Garden Blooms on Primrose Way

Volunteers, including a landscape architect, worked with the City to transform an underutilized planting strip into the Primrose Way Pollinator Garden. The vibrant native plants provide nectar and pollen for bees and butterflies. Six more pollinator gardens are now flourishing in Palo Alto – boosting biodiversity and reducing urban heat.

A Living Levee in the Baylands

The Palo Alto Horizontal Levee Pilot Project is now under construction! Designed with a gradual slope and covered by native plants, this levee restores marsh habitat and uses treated wastewater for irrigation. As a pilot, it will also inform how future horizontal levees can adapt to sea level rise in the Bay Area.



PaloAlto.gov/HorizontalLevee



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October 2025: Water Rebates UBI for Residents

CAPTURE, CONSERVE, CONVERT!

Rebates for Rain Gardens, Rain Barrels, and Low-Water Landscapes



The City of Palo Alto and Valley Water landscape and water rebates help you save money on home projects while focusing on sustainability, efficiency, and conservation. Learn more at paloalto.gov/waystosave.

RAIN GARDEN REBATE*

Receive **up to \$600** by adding a rain garden to your yard to reduce stormwater runoff from your property. Rain gardens are a great addition when converting your lawn to a low-water use landscape. See Landscape Conversion Rebate for more information.

RAIN BARREL REBATE*

Collect rainwater from your downspout and receive **\$70 per rain barrel** with a barrel size of 40 - 199 gallons.

CISTERN REBATE*

Similar to rain barrels, cisterns allow you to collect and use a larger amount of rainwater. You will receive **\$1.00 per gallon** with a minimum cistern size of 200 gallons

PERVIOUS PAVEMENT REBATE*

Receive **\$1.50 per square foot** adding pervious pavement to your property (e.g., permeable pavers, porous asphalt, pervious concrete, or grid pavement).

For questions on Stormwater Rebates call (650) 329-2122 or email cleanbay@paloalto.gov

TO LEARN MORE VISIT:
paloalto.gov/waystosave

*Funded by your monthly Stormwater Management Fee.



, low-water-use landscape
ge of Valley Water's Design
ion with a landscape

REBATE

water to irrigate your

scape Conservation or
[valleywater.org](https://www.valleywater.org)
message at (408) 630-2554.

INDOOR SURVEY

provided by Palo Alto's partner
ervation, Valley Water.

avings.org
wise@valleywater.org
ce message at (408) 630-2000.

LOW?

0% of water use can go toward
ypical Palo Alto home.

SURVEY!

ve is required for hoses to water
d wash vehicles.

ective plumbing and irrigation
be repaired or replaced within a
riod.

ains or other decorative water
be recirculated.

instead of a hose to clean hard
as sidewalks and driveways.

paloalto.gov/311
at (650) 496-6968.
use restrictions.

Individuals with disabilities who require accommodations to access City facilities, services or programs, or who would like information on the City's compliance with the Americans with Disabilities Act (ADA) of 1990, may contact the City's ADA Coordinator at (650) 329-2550 (voice) or email ada@paloalto.gov 10/25.

♻️ Printed on 100% post-consumer recycled paper, bleached without chlorine.

October 2025: Water Rebates UBI for Businesses



CASH BACK FOR A GREENER TOMORROW

Rebates for Rain Gardens, Rain Barrels, and Low-Water Landscapes

The City of Palo Alto and Valley Water offer water-wise rebates to Palo Alto businesses and commercial and multifamily properties while focusing on sustainability, efficiency, and conservation. Learn more at paloalto.gov/waystosave.

LANDSCAPE CONVERSION REBATE

Replace your high-water use turf with a beautiful low-water use landscape and receive **up to \$4 per square foot**.

LAWN TO MULCH REBATE

Receive up to **\$2 per square foot** for converting existing high-water-use landscape to mulch.

RAIN GARDEN REBATE*

Receive **up to \$600** by adding a rain garden to your landscape to reduce stormwater runoff from your property. A great addition to your landscape conversion!

PERVIOUS PAVEMENT REBATE*

Receive **\$1.50 per square foot** by adding pervious pavement to your property. (e.g., permeable pavers, porous asphalt, pervious concrete, or grid pavement).

TO LEARN MORE VISIT:
paloalto.gov/waystosave



HELP SAVE WATER BY REPORTING WATER WASTE: paloalto.gov/311
EMAIL drought@paloalto.gov or leave a voice message at (650) 496-6968.

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♻️ Printed on 100% post-consumer recycled paper, bleached without chlorine.

per rain barrel with a barrel size

to store a larger amount of rainwater.
minimum barrel size of 200 gallons.

REBATE

for water conservation projects that

include multifamily properties, including mobile
homes, and individual tenant water usage.

for efficient equipment.

to offset your monthly Stormwater Management Fee.

LANDSCAPE SURVEY

LEARN MORE

paloalto.gov/savings.org

conservation@valleywater.org

or leave a voice message at (408) 630-2554

IS KEY!

Water for construction uses is
if non-potable water is available.

Decorative fountains or other decorative
fountains must be recirculated.

Car washes must use recycled
water if economically feasible.

Water for street sweepers/
is prohibited if non-potable water
is used. For more information on how
to use recycled water visit
[recycledwater](http://paloalto.gov/recycledwater)

*Not distinguished from edible gardens or

December 2025: King Tides UBI



THE SAN FRANCISCO BAY KING TIDE

Offering a Glimpse of the Future

King tides are the highest annual tides that result from the location of the earth relative to the moon and sun. They can help us understand what sea level rise might look like in the future.

WHEN	HEIGHT
Thursday, December 4th at 10:47 a.m.	9.64'
Friday, December 5th at 11:34 a.m.	9.69'
Friday, January 2nd at 10:33 a.m.	9.60'
Saturday, January 3rd at 11:25 a.m.	9.55'

FOR YOUR SAFETY: Observe tides from a safe distance and be aware that storms can dramatically increase tide height. Palo Alto Baylands may close if flooding occurs.

WILDLIFE VIEWING: King tides are a great time to see wildlife. Enjoy the animals but keep your distance for their safety.

SEA LEVEL RISE: Learn more about the City's efforts to adapt to future sea level rise conditions at paloalto.gov/sealevelrise.

PROTECT OUR BAY: Every drop of water used in our homes travels to the San Francisco Bay. Keep it clean by properly disposing of hazardous waste and unwanted medications, and by using less-toxic pest control. Visit paloalto.gov/watershed for more tips.

SNAP THE SHORE, SEE THE FUTURE

The California King Tides Project helps us visualize future sea level by observing the highest tides of today. You can help by taking and sharing photos of the shoreline during King Tides to create a record of changes to our coast and estuaries.

Learn more at coastal.ca.gov/kingtides

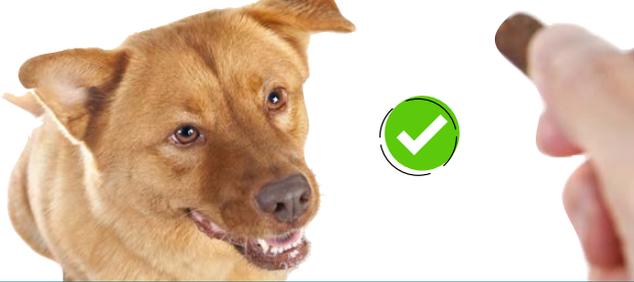


**REGIONAL
WATER QUALITY
CONTROL PLANT**

Individuals with disabilities who require accommodations to access City facilities, services or programs, or who would like information on the City's compliance with the Americans with Disabilities Act (ADA) of 1990, may contact the City's ADA Coordinator at (650) 329-2550 (voice) or email ada@paloalto.gov

12/25 ♻️ Printed on 100% post-consumer recycled paper, bleached without chlorine.

Flea and Tick Rack Card in English and Spanish



Prevent Fleas and Ticks
Ask your vet if chewable flea and tick medications are an option for your pet.

Chewable flea and tick medications may be a preferable alternative to topical treatments. Pesticides in spot-on treatments, collars, sprays, and foggers transfer onto you and indoor surfaces around your home. When washing pets, bedding, clothing, and your hands, these pesticides go down the drain and impact San Francisco Bay water quality.

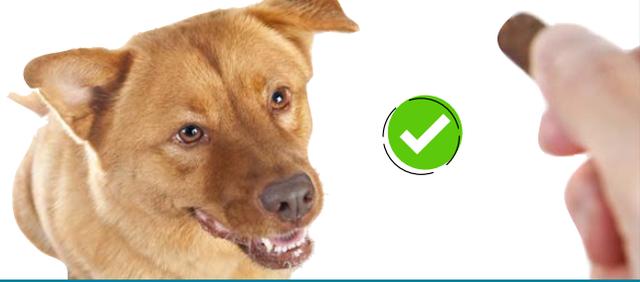


The best defense is a good offense. Follow these tips to help reduce flea and tick problems before they start:

- **Fleas** - regularly vacuum floors, furniture, pet bedding and other fabrics. Use a flea comb dipped in soapy water to capture fleas.
- **Ticks** - regularly groom and inspect your pet for ticks and keep them out of tall grasses and shrubs during tick season.

For more information, visit baywise.org.





Prevención de pulgas y garrapatas
Consulte a su veterinario si los medicamentos masticables contra pulgas y garrapatas son una opción adecuada para su mascota.

Los medicamentos masticables contra pulgas y garrapatas pueden ser una alternativa preferible a los tratamientos tópicos. Los pesticidas que se encuentran en tratamientos tópicos, collares, aerosoles y nebulizadores se transfieren a usted y las superficies del interior de su hogar. Cuando baña sus mascotas, lava la cama para mascotas, la ropa y las manos, estos pesticidas salen por el desagüe y tienen un impacto en la calidad del agua de la bahía de San Francisco.



La mejor defensa es un buen ataque. Siga estos consejos para ayudar a reducir los problemas de pulgas y garrapatas antes de que comiencen:

- **Pulgas:** pase la aspiradora de forma regular por pisos, muebles, cama lecho para mascotas y otras telas. Utilice un peine para pulgas mojado en agua jabonosa para atrapar las pulgas.
- **Garrapatas:** acicale regularmente a su mascota y haga una inspección regular de su mascota para detectar garrapatas. Manténgala alejada de la hierba alta y de los arbustos durante la temporada de garrapatas.

Para mayor información visite baywise.org.




Watershed Warrior Poster and Photo Banner

BE A WATERSHED WARRIOR WHEREVER YOU GO!



INDOORS



ARMOR UP! Switch to oral flea & tick medications for your pet. Topical flea and tick treatments like collars or sprays contain toxic chemicals that can enter our waterways when we wash our pets and expose your family and home to toxic pesticides.

FIGHT POLLUTION! Take expired medications and household hazardous waste to safe disposal locations. Putting them in the trash, or down sinks and toilets can pollute our waterways and harm aquatic life.



SHIELD OUR WATERWAYS! Only flush the 3 P's. Pee, poop, and (toilet) paper are the only things you should flush down the toilet. Other items like dental floss, wipes, and Q-tips can clog sewers that can overflow into our waterways



OUTDOORS



BE BRAVE! Pick up pet poop to protect people behind, it can be washed by rain into our storm drains and Bay. Pet waste contains pathogens (bacteria, parasites) that can harm human health and nitrates that can cause harmful algal blooms.



PROTECT OUR LAND! Install a rain barrel, rain garden, or drainable pavement. These features collect rainwater, build drought resiliency, reduce moisture and ponding around foundations, and filter pollutants from stormwater runoff.



Visit cleanbay.org for a video of the wastewater treatment process and to learn more about our efforts to protect San Francisco Bay.



CITY OF PALO ALTO

APPENDIX F: PUBLIC EDUCATION MATERIALS (CONTINUED)

Toilet Toss Game Concept



Toilet Toss Game



Sanitary Sewer Discharge BMP for Laboratories



**REGIONAL
WATER QUALITY
CONTROL PLANT**

OPERATED BY THE CITY OF PALO ALTO FOR THE EAST
PALO ALTO SANITARY DISTRICT, LOS ALTOS, LOS ALTOS
HILLS, STANFORD, MOUNTAIN VIEW, AND PALO ALTO

BEST MANAGEMENT PRACTICES LABORATORIES SANITARY SEWER DISCHARGE

Wastewater generated from laboratory work can include hazardous waste, including organic solvents and metal alloys. These are prohibited by your City's Sewer Use Ordinance from being discharged down a sink or drain to the sanitary sewer. Chemicals and metals in wastewater end up at the Palo Alto Regional Water Quality Control Plant (RWQCP) and ultimately the Bay. To reduce these pollutants, your business should follow the Best Management Practices (BMPs) outlined in this factsheet. If you have an Industrial Waste Discharge Permit, it may be required. Failure to comply with the Sewer Use Ordinance is subject to enforcement and may result in fines.

Identify Wastes Prohibited from Wastewater Discharge

- Hazardous waste as defined by local, state, and federal regulations cannot be discharged to the sanitary sewer. This includes heavy metals, chlorinated and organic solvents, alcohols, explosive liquids, and caustic or corrosive cleaning solutions.
- In addition to hazardous waste, other substances may be prohibited due to pollutants or pollutant properties such as chemical ingredients (e.g., mercury, copper), pH, temperature, explosivity, radioactivity, or physical properties.
- Ensure that non-hazardous waste is neutralized with pH between 5 and 11 prior to disposal in a sanitary sewer sink or drain.
- Questions? Please email Pretreatment@PaloAlto.gov

Prevent Sewer Releases through Equipment and Process Design

- The first three rinses from chemical containers or labware that have been in contact with hazardous or prohibited substances must not be discharged to a sanitary sewer drain.
- Ensure that drains from analytical equipment and automated chemistry are connected to waste collection containers unless explicitly approved by the RWQCP to be connected to a sanitary sewer drain.
- For safety showers, either eliminate the shower drain or protect the drain from spills using a lip, standpipe, or a temporary plug that automatically opens when the shower is turned on.

Minimize Waste and Train Personnel

- When purchasing chemical supplies, order minimum quantities to allow for easier storage and to reduce waste in case procedures are changed or expiration dates pass. Consider less toxic alternatives.
- Use the minimum amount of chemicals required by each experiment or process to minimize disposal volume.
- Ensure that all employees have been trained on your facility's chemical handling, disposal, and spill response protocols.
- Post signs or diagrams at workstations, sinks, and drains to remind employees that disposal of these substances and associated rinse water to the sewer is prohibited.

Properly Store Chemicals and Wastes

- For all on-site chemicals, have copies of Safety Data Sheets (SDS) easily accessible to all personnel.
- Properly label and store all chemicals/wastes in chemical safety cabinets with secondary drip and spill containment, or store chemicals in an external secondary containment vessel (e.g., a tray or bermed area). This should be impervious to the liquid(s) being contained and large enough to hold at least 110% of the capacity of the primary container, or if there are multiple primary containers then 150% of the largest primary container. Secondary containment vessels (or areas) shall not drain to the sanitary sewer or storm drain system.
- Label interim (or in use) containers with contents and date.
- Segregate incompatible chemicals to prevent mixing in case of a spill.
- Chemical containers or spouts should not be stored in or above sinks and should be kept closed when not in use.
- Reduce glass breakage by storing glassware and glass containers on rubber mats; use plastic coated chemical bottles; and use plastic or insulated holders for solvent bottles.
- If waste storage is needed in a fume hood, these containers should be small (so as not to interfere with workspace or airflow) and clearly labeled with contents. They should include secondary containment and be emptied into a larger container (stored outside of the fume hood) at the end of a work shift.
- Inspect stored chemicals regularly for expiration, deterioration, and chemical integrity.

Prevent Mercury Releases (If Applicable)

- Keep a mercury spill clean-up kit near the work area.
- Install under-sink sewer traps that are made of glass or other transparent material for inspection and cleaning.
- Consider replacing mercury-containing equipment (such as thermometers) with non-mercury alternatives.

Prevent Copper Releases (If Applicable)

- Avoid products such as copper sulfate, copper-containing algaecides, and copper incubator water trays.
- If copper-containing products or copper incubator water trays must be used, waste must be collected and disposed of through the facility's waste hauler and cannot be discharged to the sanitary sewer drain.

Sanitary Sewer Discharge BMP for Art Studios



OPERATED BY THE CITY OF PALO ALTO FOR THE EAST PALO ALTO SANITARY DISTRICT, LOS ALTOS, LOS ALTOS HILLS, STANFORD, MOUNTAIN VIEW, AND PALO ALTO

BEST MANAGEMENT PRACTICES
ART STUDIOS
SANITARY SEWER DISCHARGE

Making art can produce liquid and solid waste that are prohibited by your City's Sewer Use Ordinance from being poured down a sink or drain to the sanitary sewer. Chemicals and metals in wastewater end up at the Palo Alto Regional Water Quality Control Plant (RWQCP) and ultimately in the Bay. To reduce these pollutants, art studio facilities and artists should follow the Best Management Practices (BMPs) outlined in this factsheet. Failure to comply with the Sewer Use Ordinance is subject to enforcement and may result in fines.

Avoid Disposing Wastes Down the Drain

- Hazardous waste must not be poured down a sink or drain to the sanitary sewer. This includes heavy metals, chlorinated and organic solvents, alcohols, explosive liquids, and caustic or corrosive cleaning solutions (California Code of Regulations Title 22 and the CFR Title 40 Part 261).
- Materials that may clog a sewer pipe must not be disposed of into the sanitary sewer. This includes solid materials or materials expected to gel or solidify as they cool or harden (e.g., paint).
- Other substances may be prohibited due to properties such as chemical ingredients, heavy metals (e.g., silver, copper), pH, temperature, explosivity, or radioactivity. These are specified in your City's Sewer Use Ordinance.
- Questions? Please email Pretreatment@PaloAlto.gov

Chemical and Hazardous Waste Storage

- Properly label and store all chemicals in chemical safety cabinets with latched doors.
- Keep hazardous waste in non-corrosive containers, in an area separate from other chemical storage, and labeled in accordance with state and federal laws until they can be properly disposed of.
- Do not store chemicals or wastes above sinks or other drains.
- Do not store chemicals or waste in consumer commodity containers such as milk containers or soda bottles.
- Segregate incompatible chemicals to prevent mixing in case of a spill.
- Store chemicals in a secondary drip and spill containment vessel or area (e.g., a tray or bermed area). This should be impervious to the liquid(s) being contained and large enough to hold at least 110% of the capacity of the primary container, or if there are multiple primary containers then 150% of the largest primary container. Secondary containment vessels (or areas) shall not drain to the sanitary sewer or storm drain system. Local fire codes may require a permit and/or Hazardous Materials Management Plan (HMMP) to document the use and storage locations of hazardous materials.

Spill Clean Up

- Do not use mop water to clean up spills. Doing so makes the floor mop water hazardous, and it can no longer be disposed of down a sink or toilet drain.
- Prior to mopping, use dry clean-up methods: (1) clean up spills with rags, kitty litter, or other absorbent materials, (2) sweep up all absorbent material, and (3) manage the rags and absorbent as either solid waste or hazardous waste, per CA Waste Codes. Do not wash or reuse the rags.
- Following the 3-step dry clean-up methods, any subsequent mop water may be discharged to the sanitary sewer via a toilet or sink.
- Never use a wet vac to clean a solvent spill because vapors can explode in the vacuum.
- Keep spill prevention, clean-up equipment, and absorbent materials in stock and readily available.

Disposing of Hazardous Waste

- Small businesses and non-profit organizations located in Palo Alto, East Palo Alto, Mountain View, Stanford, Los Altos, or Los Altos Hills that generate 220 pounds or less of hazardous waste per month may participate in Palo Alto's Very Small Quantity Generator Program. A registration and disposal fee are required based on the type and quantity of waste being disposed of. To register for an appointment, call the Palo Alto's hazardous waste contractor (Clean Harbors) at (800) 433-5060 or send an email request to VSQG@cleanharbors.com. More information is available at www.paloalto.gov/hazwaste
- Alternatively, contract with a certified hazardous waste management hauler to collect and dispose of hazardous waste.
- Retain all disposal and hauling records for a minimum of 3 years.

Educate Staff and Customers

- Post signs or diagrams at work stations, sinks and drains to remind users that disposal of specific substances to the sewer is prohibited (e.g., "Do Not Dump Cement, Clay, Glazes, Chemicals, or Hazardous Materials Down the Drain").
- Ensure that all users have been informed of chemical handling, spill response, and disposal protocols.
- For all on-site chemicals, have copies of Safety Data Sheets (SDS) accessible to all users.

For more information call the Regional Water Quality Control Plant at (650) 329-2122, email Pretreatment@PaloAlto.gov, or visit PaloAlto.gov/wastewatertreatment-businesses.

- dispose of as hazardous waste.
- Small amounts of cleaning waste from brushes, rollers, buckets, and tools that are contaminated with latex or water-based paints may be poured into sanitary sewer drains provided that no prohibited additives (such as fungicides containing tributyltin compounds) were added to the paint.

- All wastewater from metalworking and jewelry-making should be stored as hazardous waste and may be subject to federal Pretreatment regulations. Contact the RWQCP at Pretreatment@PaloAlto.gov to see if an Industrial Waste Discharge Permit is required.

For more information call the Regional Water Quality Control Plant at (650) 329-2122, email Pretreatment@PaloAlto.gov, or visit PaloAlto.gov/wastewatertreatment-businesses.

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Sanitary Sewer Discharge BMP for Machine Shops



**REGIONAL
WATER QUALITY
CONTROL PLANT**

OPERATED BY THE CITY OF PALO ALTO FOR THE EAST
PALO ALTO SANITARY DISTRICT, LOS ALTOS, LOS ALTOS
HILLS, STANFORD, MOUNTAIN VIEW, AND PALO ALTO

BEST MANAGEMENT PRACTICES MACHINE SHOPS SANITARY SEWER DISCHARGE

Wastewater generated from cleaning or deburring/tumbling parts can include hazardous waste, including organic solvents and metal alloys. These are prohibited by your City's Sewer Use Ordinance from being poured down a sink or drain to the sanitary sewer. Chemicals and metals in wastewater end up at the Palo Alto Regional Water Quality Control Plant (RWQCP) and ultimately in the Bay. To reduce these pollutants, your business should follow the Best Management Practices (BMPs) outlined in this factsheet. If you have an Industrial Waste Discharge Permit, it may be required. Failure to comply with the Sewer Use Ordinance is subject to enforcement and may result in fines.

Avoid Disposing Wastes Down the Drain

- There are enforceable maximum limits to metal and organic solvent discharges to the sewer (see your city's Sewer Use Ordinance).
- Do not dispose of metal working fluids (MWFs) or rinse water from parts cleaning or deburring/tumbling operations into the sanitary sewer system except pursuant to an existing industrial waste discharge permit obtained from the City.
- After tumbling, and prior to rinsing, remove deburred parts from tumblers, and, if practical, wipe parts with a disposable towel or rag prior to rinsing.
- Questions? Please email Pretreatment@PaloAlto.gov

Prevent Spills

- No machine shop should contain floor drains, except for floor drains that are connected to wastewater pretreatment systems for which an Industrial Waste Discharge Permit has been obtained from the City.
- Change fluids in bermed or contained areas, or use drip pans. The ideal location to change fluids is over an epoxy-sealed concrete shop floor. Do not change fluids directly over blacktop or asphalt.
- Drip pans and open containers containing MWFs must not be left unattended unless they are covered securely and within secondary containment.
- Store fluids in a secondary containment vessel or area (e.g., a tray or bermed area). This should be non-corrosive and impervious to the liquid(s) being contained and large enough to hold at least 110% of the capacity of the primary container, or for multiple primary containers 150% of the largest primary container.
- Do not drain secondary containment vessels (or areas) to the sanitary sewer or storm drain system.

Use Dry Methods of Spill Cleanup

- Do not use mop water to clean up solvent or oily spills such as spilled or leaked MWFs, hydraulic oils, or tapping fluids. Doing so makes the floor mop water hazardous, and it can no longer be disposed of down a sink or toilet drain.
- Prior to mopping, (1) clean up spills using absorbent materials (e.g., rags, kitty litter, sock-type absorbents, mats), (2) sweep up all absorbent material, and (3) manage the rags and absorbent as either solid waste or hazardous waste, per CA Waste Codes. Do not wash the rags.
- Following the 3-step dry clean-up methods, any subsequent mop water may be discharged to the sanitary sewer via a toilet or sink.
- If a wet spill is large, use gravel bag berms, wattles, or mats to contain the wet area. Then use a wet-vac or small pump and hose to direct wet waste to a tank. Contact a registered hazardous waste hauler to dispose of this waste.
- Keep spill prevention, clean-up equipment and absorbent materials in stock and readily available.

Limit Waste of Metalworking Fluids (MWFs)

- MWFs should be recycled and reused as much as possible; used fluids that cannot be recycled should be disposed of as hazardous waste and hauling logs/records maintained onsite for at least 3 years.
- Monitor pH and MWF concentration (such as with a refractometer) and keep a data log. A rapid pH change could mean high biological activity or increase in rust. The right MWF concentration will help ensure the correct amount of concentrate to control gumming, sticking, or smearing from excess MWF.
- Prior to disposing of tramp oil, thoroughly separate it from the MWF to limit the volume of wasted MWF.
- Keep the MWF cool to slow microbe growth in sumps and fluid areas.
- Frequently wash hands to reduce bacteria contamination to the MWF.

Educate Employees

- Train employees, upon hiring and annually, on these BMPs; document the training and maintain records onsite for at least 3 years.
- Place signs or diagrams at workstations, shop sinks and drains (e.g., "Do Not Dump Chemicals, Hazardous Materials, or Rinse Water Down the Drain").
- For all on-site chemicals, have copies of Safety Data Sheets (SDS) easily accessible to all personnel.

Streamline Purchasing of MWFs

- Standardize the MWFs used in the shop to facilitate reuse, recycling, treatment, storage, and disposal.
- Select high-quality MWFs to minimize bacterial growth and additive breakdown to allow for longer use.
- Seek high-grade way oils that will separate easily from MWF (to ease treatment and recycling), do not cause foaming, and contain few or no sulfur compounds (a bacteria food source).
- Consider less-toxic alternatives, such as avoiding chlorinated and fluorinated compounds (see below).

Avoid Chlorinated and Fluorinated Organic Compounds

- Seek to eliminate MWFs that contain chlorinated compounds, such as polychlorinated alkanes (PCAs, also known as chlorinated paraffins). These may be present as an anti-wear additive in high-temperature lubricants. Chlorinated compounds can impact waste disposal options and costs.
- Seek to eliminate MWFs that contain perfluoroalkyl and polyfluoroalkyl substances (PFAS) to reduce employee exposure and avoid sewer discharge implications. PFAS compounds can be found in numerous MWFs including lubricants, greases, oils, and cleaners.
- Identifying PCAs and PFAS is not straightforward. Start by looking at the SDS, under the ingredients section and the regulatory section, looking for the prefixes "chloro" or "fluoro" in the ingredient names. They may not be listed if considered proprietary or if present at a de minimus level (which could be as high as 1%). Consider requesting information from the manufacturer if the SDS is unclear.

Dental Amalgam Management Requirements BMP for Dentist Offices

Compliance Checklist:

- Submit a One-Time Compliance Report for new or transfer-of-ownership dental practices within 90 days of purchase/transfer. Your practice may periodically be required to submit additional information at the request of the Regional Water Quality Control Plant. Contact Pretreatment@cityofpaloalto.org for submittal details or to request a copy of your existing compliance report.
- Install and maintain approved ISO 11143 or ANSI/ADA 108 certified amalgam separator.
- Repair or replace malfunctioning amalgam separators no more than 10 business days after the malfunction was discovered.
- Implement Best Management Practices (see reverse side for details).
- Keep training, disposal and equipment records on-site and available for inspection.

Regional Water Quality Control Plant Contact Information

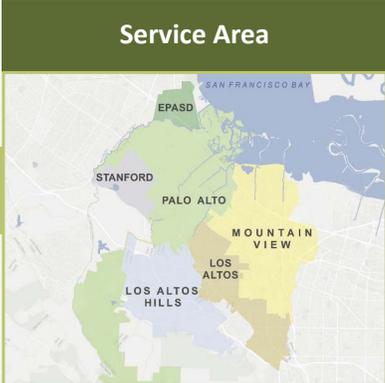
- » Phone Number: (650) 329-2122
- » Email: Pretreatment@cityofpaloalto.org
- » Visit CleanBay.org for more information on this and other business and industrial sanitary sewer requirements.

DENTAL AMALGAM MANAGEMENT REQUIREMENTS



Wastewater from your dental practice drains to the Palo Alto Regional Water Quality Control Plant (Plant), where it is treated before flowing to the San Francisco Bay. Waste from mercury amalgam fillings, if not properly managed, will flow to the Plant and eventually the Bay, where it can harm aquatic ecosystems. You can help reduce mercury loads to the Plant and Bay by complying with the federal and local regulations for dental amalgam. All dental practices that place or remove mercury amalgam within the Plant service area are required to comply. The Plant's service area includes:

- East Palo Alto Sanitary District
- Los Altos
- Los Altos Hills
- Mountain View
- Palo Alto



Service Area



Amalgam Separator Requirements:

- Install ISO 11143 or ANSI/ADA 108 compliant amalgam separator that achieves at least 95% removal;
- Accommodate the maximum discharge rate of amalgam process
- Inspect to ensure proper maintenance according to instructions; and
- Ensure installed, inspected and repaired according to instructions.



Help Reduce Mercury Pollution with these Best Management Practices

1 Eliminate use of bulk elemental mercury. Bulk elemental mercury, also referred to as liquid or raw mercury, must be recycled or disposed as hazardous waste. Use only pre-capsulated dental amalgam in the smallest appropriate size.

2 Properly manage chair-side traps. Clean and maintain chair-side traps in accordance with the manufacturer's instructions. Store the trap and its contents with amalgam waste. Never rinse traps in the sink or flush amalgam waste in the toilet.

3 Do not use bleach (sodium hypochlorite), peroxide, iodine, or chlorine-based products (i.e. oxidizing or acidic cleaners) to clean dental unit water lines, chair-side traps, and vacuum lines. These products have been shown to release the mercury in the amalgam. Use only non-chlorine, non-oxidizing, neutral line cleaners with a pH between 6 and 8.

4 Properly maintain and dispose screens. Change vacuum pump filters and screens as needed or as directed by the manufacturer and store with amalgam waste. Seal and store filters in airtight containers along with screens and their contents (including any water that may be present) and dispose with amalgam waste as hazardous waste.

5 Maintain amalgam separators and vacuum systems according to manufacturer's recommendations. Keep written or digital records of amalgam separator inspections, as well as all documentation of amalgam equipment maintenance and repair for no less than three years.

6 Store amalgam waste in airtight containers. All contact and non-contact amalgam scrap must be salvaged and stored in a structurally sound, tightly closed, appropriately labeled container.

7 Properly recycle amalgam waste. Collect and recycle, or manage as hazardous waste, all waste amalgam, elemental mercury, broken or unusable amalgam capsules, extracted teeth with amalgam, amalgam-containing waste from chairside traps, screens, vacuum filters, instruments and collection devices.

8 Keep records. All amalgam-related paperwork must be retained for no less than three years.

9 Train staff in proper handling, management, and disposal of mercury-containing materials. Maintain a training log and keep this log for at least three years.

10 Don't forget stormwater best management practices! Stormwater flows into streets and gutters picking up pollutants, such as oil, litter, and sediment, before it enters the storm drain system and travels to local creeks and the San Francisco Bay. Keep your parking lots, walkways, and refuse areas clean to help keep pollutants from entering our local waterways.

School Program Flyer

Bring “Microbes in Sewage” to your 7th grade classroom!



Scan to sign up



Don't miss this FREE hands-on science lesson using microscopes to view microbes.

In a laboratory setting, students practice their microscope skills as they observe, document and identify microorganisms pulled from their local wastewater treatment plant. Students learn how the treatment process uses bacteria and microbes to remove organic matter. They will understand how stormwater runoff and wastewater treatment affects the San Francisco Bay's health, and how they can prevent pollution in our waterways.

The details:

- This popular 7th grade science lesson has been running for 25+ years & meets NGSS.
- Experienced educators from the **Marine Science Institute** will teach the lesson.
- Contact Jodi: **650-364-2760 ext. 21** for questions or to schedule a lesson.



These programs are made possible by a partnership between the City of Palo Alto's Regional Water Quality Control Plant and the Marine Science Institute. Through youth education, we aim to prevent pollution in our waterways.

School Program Flyer

Take a **FREE** Field Trip to the Palo Alto Baylands!



Take your 4th graders on a 3-hour field trip for a memorable experience in the Bay's marshland.

Through hands-on activities, students will learn about watersheds, how stormwater runoff and the wastewater treatment process affects the Bay's health, and how they can prevent pollution in our waterways.

**Apply Online
by Oct. 20**

The details:

- We have a limited number of field trips. Apply to receive one via a lottery.
- Field trip taught by the Palo Alto Junior Museum & Zoo and meets NGSS standards.
- Questions? Scan the QR code for more detailed information and to apply.
- Deadline passed? Apply anyway. We may still have trips left.



These field trips are made possible by a partnership between the City of Palo Alto's Regional Water Quality Control Plant and the Palo Alto Junior Museum & Zoo. Through youth education, we aim to prevent pollution in our waterways.

Horizontal Levee Interpretive Sign Project - Sign #1

A New Kind of Levee

Inspired by Nature



This gently sloping marsh, called a **horizontal levee**, mimics the Bay's natural coast. Like a traditional levee, it protects against flooding and sea level rise. But its design is unique because it uses natural processes to build habitat and protect the Bay.

What You See

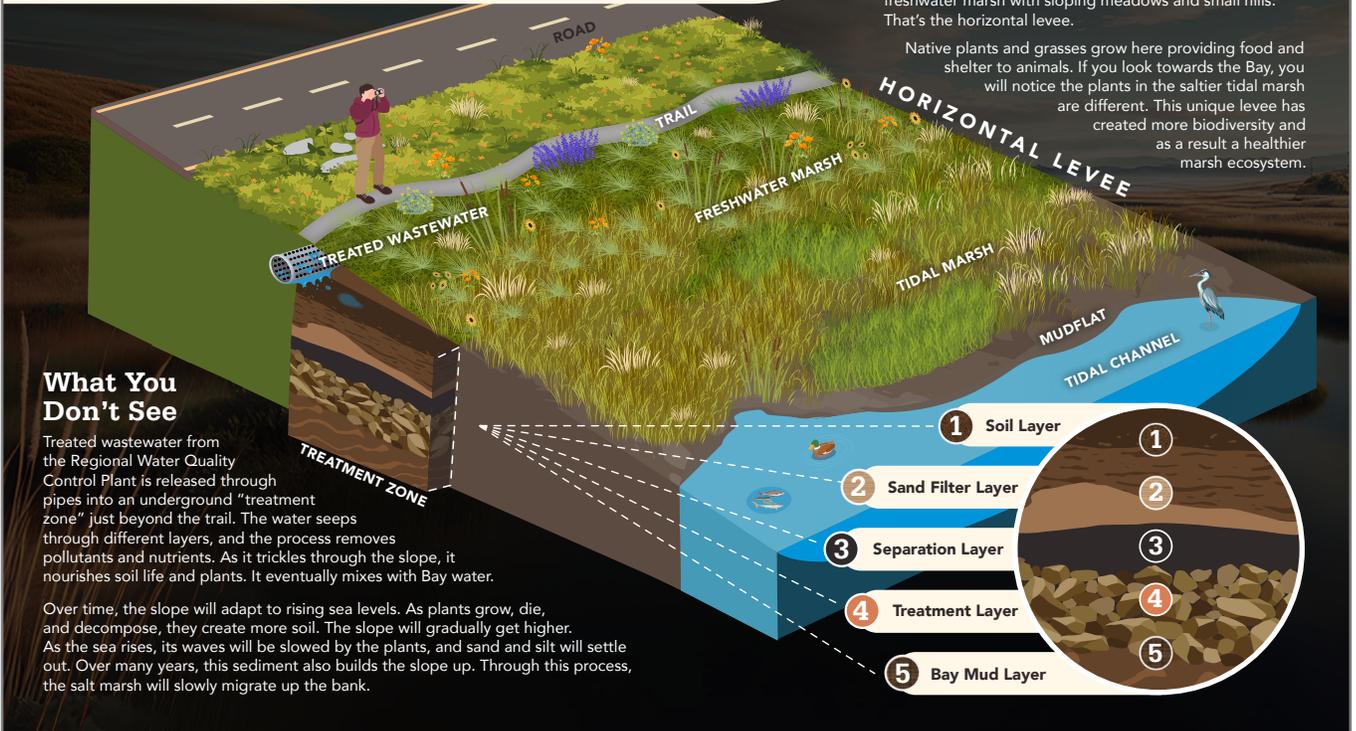
At first glance, you see a serene natural landscape on a gentle slope. The trail you walked along is an earthen berm that prevents flooding when tides rise. From it, you see a freshwater marsh with sloping meadows and small hills. That's the horizontal levee.

Native plants and grasses grow here providing food and shelter to animals. If you look towards the Bay, you will notice the plants in the saltier tidal marsh are different. This unique levee has created more biodiversity and as a result a healthier marsh ecosystem.

What You Don't See

Treated wastewater from the Regional Water Quality Control Plant is released through pipes into an underground "treatment zone" just beyond the trail. The water seeps through different layers, and the process removes pollutants and nutrients. As it trickles through the slope, it nourishes soil life and plants. It eventually mixes with Bay water.

Over time, the slope will adapt to rising sea levels. As plants grow, die, and decompose, they create more soil. The slope will gradually get higher. As the sea rises, its waves will be slowed by the plants, and sand and silt will settle out. Over many years, this sediment also builds the slope up. Through this process, the salt marsh will slowly migrate up the bank.



Horizontal Levee Interpretive Sign Project - Sign #2

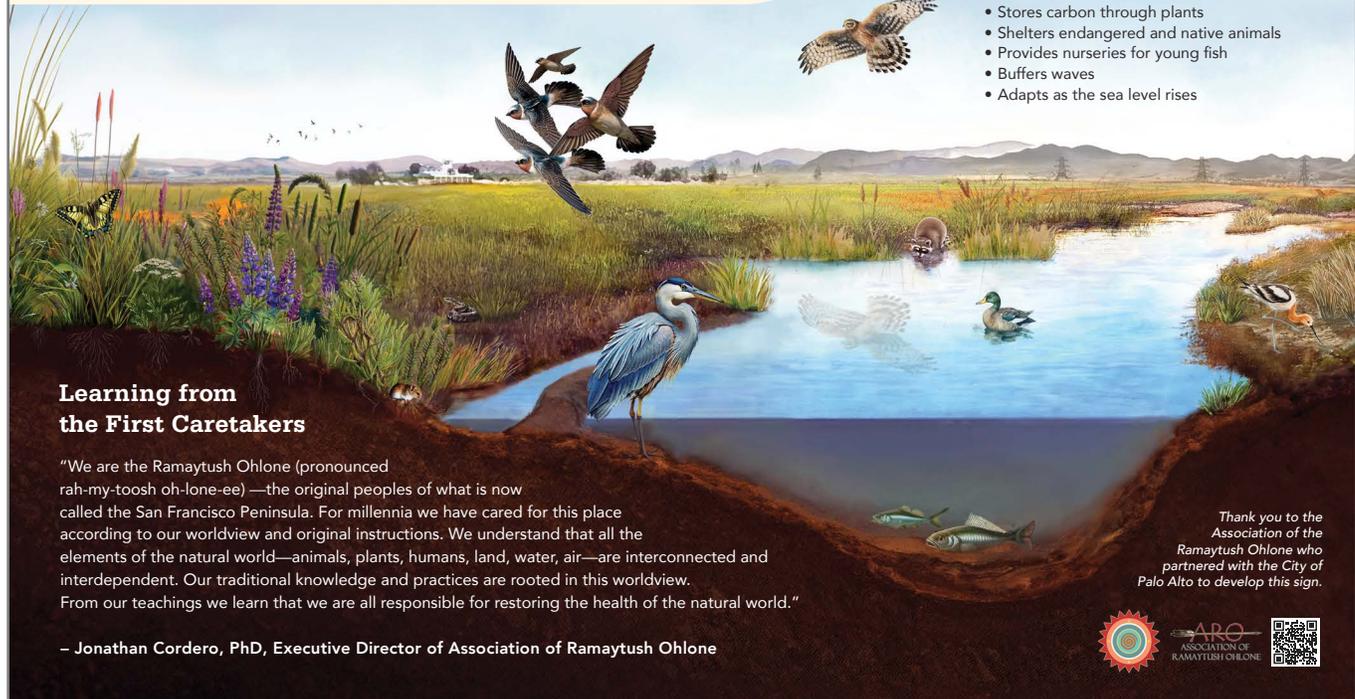
Restoring the Health of the Baylands



This **horizontal levee** restores a marsh habitat. Also, it informs us how we can solve other environmental problems, such as sea level rise. Local Native people often collaborate with scientists and designers on restoration projects like this one. Native knowledge can help us understand how to care for the land.

Many freshwater marshes once existed in the Bay Area. This levee restores a freshwater marsh and reconnects it to a saltwater marsh. This has many benefits such as, it:

- Offers food for wildlife
- Filters and clean water
- Stores carbon through plants
- Shelters endangered and native animals
- Provides nurseries for young fish
- Buffers waves
- Adapts as the sea level rises



Learning from the First Caretakers

"We are the Ramaytush Ohlone (pronounced rah-my-toosh oh-lone-ee) —the original peoples of what is now called the San Francisco Peninsula. For millennia we have cared for this place according to our worldview and original instructions. We understand that all the elements of the natural world—animals, plants, humans, land, water, air—are interconnected and interdependent. Our traditional knowledge and practices are rooted in this worldview. From our teachings we learn that we are all responsible for restoring the health of the natural world."

– Jonathan Cordero, PhD, Executive Director of Association of Ramaytush Ohlone

Thank you to the Association of the Ramaytush Ohlone who partnered with the City of Palo Alto to develop this sign.



ARO
ASSOCIATION OF
RAMAYTUSH OHLONE



Horizontal Levee Interpretive Sign Project - Sign #3

Preparing for Sea Level Rise

Piloting Solutions



You are looking at a new type of levee, called a **horizontal levee**. Built in 2025, it is the first of its kind on the San Francisco Bay. Its unique design with a wide gentle slope uses treated wastewater to restore a freshwater marsh. It will also help us adapt to rising sea levels.



Traditional levees and seawalls are usually steep slopes and built with earth, rocks, steel, or concrete. They offer little or no habitat and can harm local wildlife.

A horizontal levee is a nature-based solution for sea level rise.



Rising sea levels are one of the hazards caused by climate change. Nature-based solutions use nature to solve these types of environmental problems. We could have built a traditional levee here with high walls or rocks. But this would only protect the land from higher water. A horizontal levee still prevents flooding, but also has other benefits, like habitat for animals.

Left: Horizontal levees are gradual slopes and built with earth. Landscaped with native plants, they create and support healthier coastal ecosystems.

Photo by Alicia Singer

Scientists are studying this levee.

You may notice that this horizontal levee is not huge. That is because we are testing it. What we learn will inform the design of future sea level rise projects in the Bay Area. The City hopes to answer these questions:

- Is the levee increasing the biodiversity of native plants and animals?
- Is it improving habitat for endangered or threatened animals?
- Is the soil building up over time and helping the marsh adapt to rising tides?
- Is the levee's "treatment zone" further cleaning the treated wastewater?
- Does the treated freshwater impact the saltwater marsh?



Photo by Mike Smith

You might see an endangered salt marsh harvest mouse here. They only live in salt marshes, and habitat loss is their biggest threat. Scientists are studying this restored marsh to see if it increases their population.



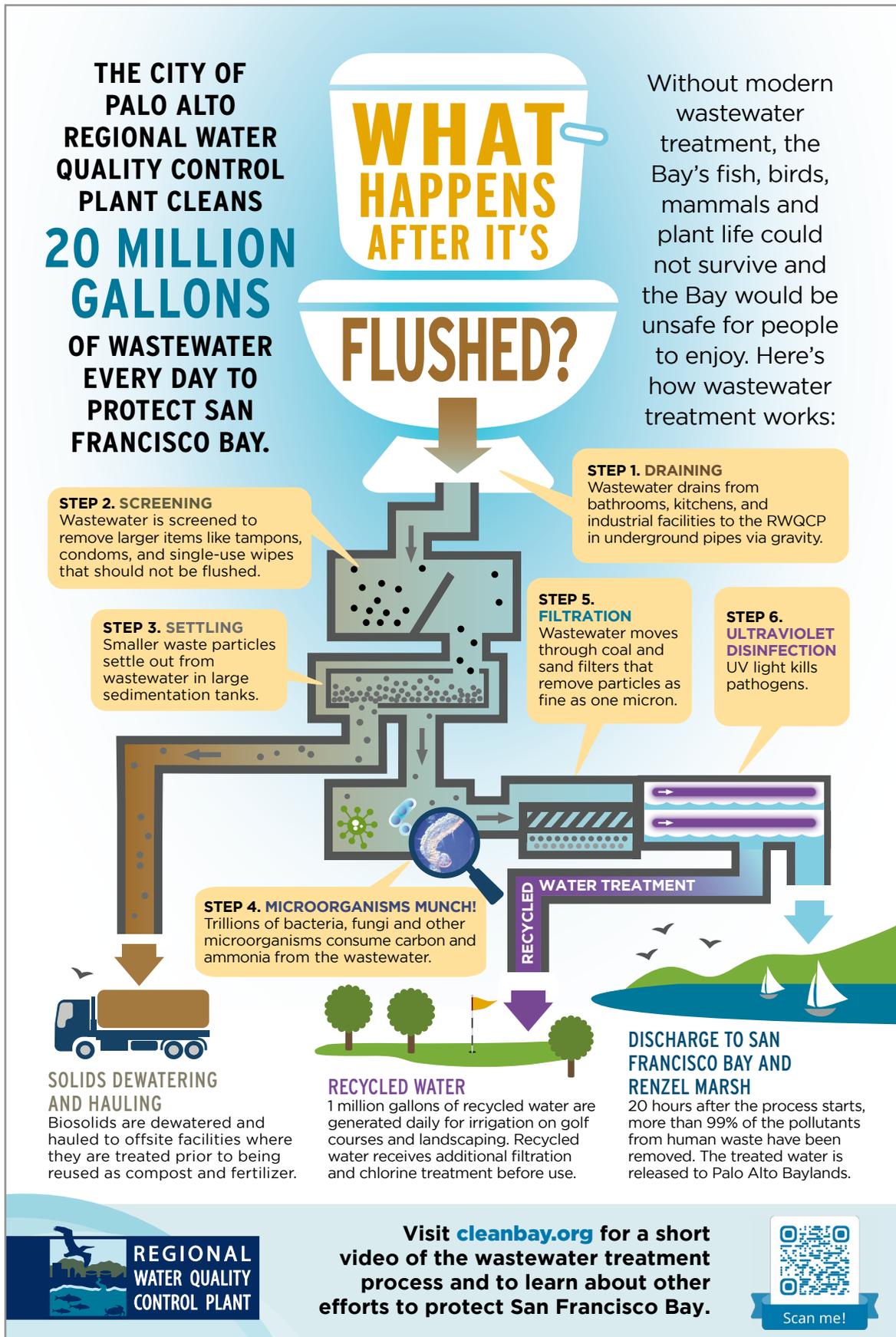
The City of Palo Alto has partnered with many organizations to build and study this horizontal levee pilot project.

APPENDIX F: PUBLIC EDUCATION MATERIALS (CONTINUED)

Horizontal Levee Interpretive Sign Project - Temporary Signs at Project Site



What Happens After It's Flushed Poster



APPENDIX G: HISTORICAL PROGRAM TIMELINES

YEAR	ACTIONS
1989	<ul style="list-style-type: none"> • Pollution Prevention Program initiated
1990	<ul style="list-style-type: none"> • Storm drain permit issuance-began to direct wastewater discharges to sewer • Increased industrial enforcement • Large dischargers required to prepare pollution prevention plans
1991	<ul style="list-style-type: none"> • Silver reduction program initiated • Community outreach on copper-based root control products
1992	<ul style="list-style-type: none"> • Launched Clean Bay Business Program for vehicle service facilities • Local ban on sale and use of copper-based root control products
1993	<ul style="list-style-type: none"> • Cooling water systems program • Laboratory program • Education on selenium toner • Clean Bay Business Program for hardware stores and plumbers started • Sewer line through superfund site begins to receive high levels of arsenic
1994	<ul style="list-style-type: none"> • Regional outreach on copper-based root control products • Pool, spa and fountain outreach program • Machine shop program started • Automobile parts stores Clean Bay Business Program initiated
1995	<ul style="list-style-type: none"> • Reduced local discharge limit for nickel • Expanded cooling water systems efforts • Regional mobile cleaner outreach • Hospital and medical facility program • Sewer line through superfund site repaired • Copper dumping incident • Final ban on sale of lead-containing gasoline takes effect • Intensive enforcement on silver program, vehicle service facility program
1996	<ul style="list-style-type: none"> • Regional ban on copper-based root control products • Regional mobile cleaner certification • Metal finishing program • Vehicle Clean Bay Business program five-year anniversary; 88% participation
1997	<ul style="list-style-type: none"> • Auto body shop BMPs distributed • School program enhanced • Record 92% of vehicle service facilities become Clean Bay Businesses
1998	<ul style="list-style-type: none"> • Laboratory improves mercury analysis • IPM Partnership launched • Began collection of mercury thermometers and other products; collected 34 pounds mercury • Printers and dentists receive BMPs
1999	<ul style="list-style-type: none"> • Launched mercury thermostat drop-off program • Began education campaign regarding residential woodsmoke pollution • Expanded the IPM Partnership program • Sewage sludge incinerator rehabilitation for enhanced pollution prevention
2000	<ul style="list-style-type: none"> • City of Palo Alto adopts a Mercury and Dioxin Elimination Policy; participating in and funding the Association of Bay Area Governments (ABAG) dioxin group • Initiated dental stakeholder group regarding amalgam management • Mercury product legislation drafted • Piloted a residential drop-off program for fluorescent lamps • City of Palo Alto adopts fireplace ordinance • Sewage sludge incinerator rehabilitated for enhanced pollution prevention

APPENDIX G: HISTORICAL PROGRAM TIMELINES (CONTINUED)

YEAR	ACTIONS
2001	<ul style="list-style-type: none"> • Initiated and drafted SB 633, the CA Mercury Reduction Act • Conducted mercury audits at three local hospitals • Successful expansion of pilot residential recycling of fluorescent lamps at 5 hardware stores and at RWQCP • Led BAPPG in creation of an inspection checklist for dental offices and a set of PowerPoint presentations for dental community outreach • Began using 20% biodiesel in City's diesel landfill and golf course equipment • Began purchasing process-chlorine-free office paper and letterhead and unbleached paper towels • Completed the City pesticide policy and implementation plan • Assisted the Palo Alto Unified School District (PAUSD) with the "Healthy Schools Act" compliance
2002	<ul style="list-style-type: none"> • The Mercury Elimination Policy resulted in new City purchasing specifications to require low-mercury lamps • Created first annual report of City pesticide use • Initiated copper pollution prevention program, educating local plumbers and designers about copper pipe corrosion • New Sewer Use Ordinance passed that: <ul style="list-style-type: none"> • Lowered the mercury limit for industrial dischargers • Prohibited sewer disposal of zinc-containing floor waxes • Banned new and replaced copper roofs • Required covered carwash facility for new and remodeled buildings with 25 units or more • Added boilers and heat exchangers to the requirement of wastewater collection and analysis if one is doing scouring and cleaning • Led Emerging Contaminants Workgroup of the Watershed Management Initiative to compile and finalize an Endocrine Disrupting Compounds Information Sheet • Distributed a "drug free sewers" utility bill insert to describe proper disposal of expired prescriptions • Initiated chemical root control applicator permitting program
2003	<ul style="list-style-type: none"> • Completed work plan for an advanced mercury source control study that focuses on (1) improving amalgam collection and pretreatment at dental offices and (2) continuing identification of on-site RWQCP mercury uses and alternatives • Palo Alto has developed seven IPM plans and extensive training for weeds, gophers, ground squirrels, yellow jackets, ants, rats, and mice • From inception through 2003, the fluorescent lamp program collected over 7,575 lamps at four drop off sites in our service area • In the 2002/2003 school year, RWQCP school program visited 151 classrooms which reached approximately 3,682 students. This was a 41% increase over the previous year • Palo Alto staff educated approximately 350 people regarding Endocrine Disruptor Compounds by presenting at seven different conferences/ meetings throughout California
2004	<ul style="list-style-type: none"> • Palo Alto and Mountain View adopted dental amalgam pretreatment ordinances requiring dentists to install amalgam separators by March 31, 2005 • City of Palo Alto fluorescent lamp collection program was expanded throughout Santa Clara County and is now operated by the Santa Clara County Household Hazardous Waste Program • Implemented two new successful, non-chemical ground squirrel control strategies: the use of shade cloth along the municipal golf course fence line to deter ground squirrel population expansion, and a new trap design which captures up to four ground squirrels per trap. The traps have proven immediately successful • Published: <i>Tracking the Fate of Polybrominated Diphenyl Ethers releases in a Wastewater Treatment Plant Effluent</i>², concluding that the RWQCP discharges 2 pounds per year of PBDEs to the Bay
2005	<ul style="list-style-type: none"> • Dentists required to install amalgam separators in service area by March 31, 2005; 98% of dentists complied • City of Palo Alto collected 8,481 pounds of fluorescent lights at the recycling center • Analyzed City pesticide use; designed a prioritization process for annual workplan; drafted IPM Scope of Services for structural pest control contract • Made pesticide use reporting system for City staff available electronically and integrated database with GIS to map pesticide use • Served as chair of the Emerging Contaminants Workgroup of the Santa Clara Basin Watershed Management Initiative, which in 2005 produced two white papers titled "Discussion of Pharmaceutical Disposal to Sewer Systems" and "Environmental Emergence of Triclosan" • In 2004/2005 school years, RWQCP school program visited 151 classrooms, which reached approximately 4,025 students

APPENDIX G: HISTORICAL PROGRAM TIMELINES (CONTINUED)

YEAR	ACTIONS
2006	<ul style="list-style-type: none"> • City of Palo Alto led a BAPPG/CWEA Dental Amalgam Training that was attended by approximately 90 people • Inspected 113 of 300 food service facilities within the first 6 months of the program • Co-led a regional pharmaceutical disposal event at 39 locations throughout the Bay Area that diverted over 3,500 lbs of pharmaceutical waste. In Palo Alto, collected approximately 960 lbs of pharmaceuticals at pharmacies, local senior centers, and the wastewater treatment plant within the RWQCP service area. Authored a report titled "Report on the San Francisco Bay Area's Safe Medicine Disposal Days"
2007	<ul style="list-style-type: none"> • In 2006-2007 fiscal year collected 270 pounds of thermometers and thermostats and 13,498 lbs of fluorescent lights • Hired and began using and EcoWise Certified IPM contractor for City facilities to ensure reduced dependence on pesticide use and discontinued use of structural pesticides associated with water quality impacts and ecotoxicity • In 2006/2007 school years, RWQCP school program visited 163 classrooms, which reached approximately 3,961 students at twenty-six schools. Expanded our microbes in sewage program to educate all seventh graders in our service area
2008	<ul style="list-style-type: none"> • Updated Mercury Loading Estimate (previous Estimate was for 2000) to reflect new loadings after full implementation of Dental Amalgam Program. Dental office mercury loading, as a percentage of the total, decreased from 56% to 29%, and it is estimated that 11 pounds per year of mercury that would have been discharged to the sanitary sewer is now captured by amalgam separators • Completed analysis of salinity (total dissolved solids, sodium, and chloride) in RWQCP partner trunklines, influent, and recycled water • Expanded food service facility program to include expanded stormwater, polystyrene activities in addition to more rigorous enforcement of grease control device maintenance and sizing requirements
2009	<ul style="list-style-type: none"> • Adopted and implemented an ordinance restricting single-use plastic checkout bags at large grocery stores, which became effective on September 18, 2009 • Performed annual evaluation of City's pest management and pesticide use, which demonstrated that the City's ecotoxic pesticide use has decreased to the lowest levels since the program's inception • Adopted ordinance provision restricting molybdenum use in cooling systems and developed a brochure on cooling system additive restrictions in the RWQCP service area
2010	<ul style="list-style-type: none"> • In 2010, the Brake Pad Partnership was instrumental in passing the California Brake Pad Reformulation Bill (SB 346) which requires brake manufacturers to reduce the amount of copper in brake pads to no greater than 5 percent by 2023, then to no greater than 0.5 percent 2055 • Adopted and implemented an ordinance that restricts the use of expanded polystyrene disposable food service containers by Food Vendors • Implemented energy efficiency projects for the activated sludge aeration basins and trickling filter lift pumps that resulted in an 11% reduction in electricity use in 2010 compared to the average of the previous four years
2011	<ul style="list-style-type: none"> • Received the Department of Pesticide Regulation 2011 IPM Innovator Award • Led and coordinated 2011 Plastic Reduction Summit attended by multiple Bay Area public agencies and nonprofits • City staff determined the locations of saline groundwater infiltration to the sewer trunklines by using continuous monitoring equipment • Expanded number of pharmaceutical collection sites to five permanent collection locations
2012	<ul style="list-style-type: none"> • Reduced mercury entering the environment by more than 50 percent since installation of amalgam separators in 2005 • Palo Alto has a combined total of 12 pesticide free parks and facilities, in addition there was no pesticides used for rodent control • Completed EIR to expand plastic checkout bag ordinance to include all retailers including food service establishments • RWQCP's 2011 CO2 emissions are 13% lower than the 2005 emissions
2013	<ul style="list-style-type: none"> • Single use plastic bag ban was expanded to include all retail and food service establishments, which has reduced the amount of plastic bag sightings throughout the City • Installed trash booms in both Matadero and Adobe Creeks which capture a significant amount of trash prior to the flood basin • Received the 2013 Teng-Chung Wu Pollution Prevention Award from the Water Board for the City's work on reducing emerging contaminants at the source
2014	<ul style="list-style-type: none"> • Phil Bobel, the Assistant Director for Public Works–Environmental Services receives Dr. Teng-Chung Wu Pollution Prevention Award for Lifetime Achievement

APPENDIX G: HISTORICAL PROGRAM TIMELINES (CONTINUED)

YEAR	ACTIONS
2015	<ul style="list-style-type: none"> • City approved expansion of existing Plastic Foam Ordinance to prohibit retail sale/distribution of plastic foam ice chests, packaging materials, foodware, and egg cartons • RWQCP reduced greenhouse gas emissions by 41% since 2005, maintaining compliance with the City's emission reduction goals • Release request for proposals on the Advanced Water Purification System Feasibility Study
2016	<ul style="list-style-type: none"> • RWQCP began 3rd reverse osmosis pilot plant to evaluate pretreatment options • New regulation became effective with new reporting and testing requirements for Federal Sewage Sludge Incinerator Pollutants • Adopted new City goal to reduce community and municipal emissions 80% from 1990 levels by 2030 • RWQCP reduced greenhouse gas emissions by 60% since 1990 • Completed design of the sludge dewater and haul facility to allow for incinerator scheduled for 2019 • The City worked with Palo Alto Unified School District to expand water bottle filling stations
2017	<ul style="list-style-type: none"> • RWQCP Watershed Protection Manager receives Dr. Teng Chung Wu Pollution Prevention Award for leadership in BAPPG and pharmaceutical disposal leadership • Completed the 2016 Integrated Pest Management Report which showed 93% average reduction in ecotoxic pesticide use from baseline years • Conducted incinerator emissions test to prove compliance with emission limits and set operating parameter limits to maximize operational flexibility • RWQCP hosts Sludge Dewatering and Truck Loadout Facility Construction Project Groundbreaking Ceremony • Four businesses completed the ReThink program: Kirk's Steakhburgers, New York Pizza, Gelataio, and Sprout's Café
2018	<ul style="list-style-type: none"> • Worked with Girl Scout Troop 60016 to make the month of May "Drinking Straw Awareness Month" • Completed the 3rd reverse osmosis pilot project that evaluated pretreatment options • Led Fall 2018 Regional IPM Coordinators Meeting which focused on glyphosate alternatives and IPM tracking software
2019	<ul style="list-style-type: none"> • Completed Northwest County Recycled Water Strategic Plan • Decommissioned incinerators • Retired City pharmaceutical takeback program and began working with MedProject to takeback pharmaceuticals in RWQCP service area • Implemented PCBs in Priority Building Demolition Program • Valley Water awards Watershed Protection with Volunteer Recognition Award for participation in creek cleanups
2020	<ul style="list-style-type: none"> • COVID-19 pandemic forces either a pause or transition to virtual programs in March 2020 • Developed internal City Staff webpages for Integrated Pest Management Program to provide resources and directions for pest treatment at City facilities • Palo Alto City Council expands Smoking Ordinance restrictions • RWQCP repaired 72-inch trunkline
2021	<ul style="list-style-type: none"> • Reduced anthropogenic emissions by >70% since 1990 • Used 100% green (carbon neutral) natural gas that has fewer associated greenhouse gas emissions when combusted • Entered into a \$613,000 agreement with CA Department of Transportation to install a large trash capture device
2022	<ul style="list-style-type: none"> • In-person outreach returned since COVID-19 • Completed the City's Sea Level Rise Vulnerability Assessment • Completed the Secondary Treatment Upgrade Project Design and progressed the design of the Advanced Water Purification System.
2023	<ul style="list-style-type: none"> • Began construction of Secondary Treatment Upgrades, progressed the design of the Advanced Water Purification System, and completed the design for the rehabilitation of the 72-inch trunkline • Updated Dental Amalgam (Mercury) Discharge Program to match Federal Regulations and created and distributed factsheets to dental offices • Collaboration with Pets in Need to outreach on less-toxic flea and tick control, avoiding products like Fipronil and Imidacloprid • Participated in BACWA Regional PFAS Evaluations
2024	<ul style="list-style-type: none"> • Drafted updates to the Sewer Use Ordinance, adding fats, oils and grease (FOG) in its own section and maintaining consistency with new regulatory standards. • Began rehabilitation of 72-inch trunkline from Mountain View, Los Altos and Los Altos Hills • Elementary school outreach program relaunched through a new partnership with the Palo Alto Junior Museum and Zoo
2025	<ul style="list-style-type: none"> • See Appendix A