



BAY AREA POLLUTION PREVENTION GROUP

A Committee of Bay Area Clean Water Agencies

2019 Annual Report

Covering reporting period of 1/1/19 – 12/31/19



BAPPG Chair: Autumn Cleave
BAPPG Co-Chair: Robert Wilson
BAPPG Vice Chair: Joe Neugebauer

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Agencies
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EXECUTIVE SUMMARY

The Bay Area Pollution Prevention Group (BAPPG), a subcommittee of Bay Area Clean Water Agencies (BACWA), is comprised of 43 Bay Area wastewater agencies that work together to coordinate pollution prevention activities and leverage resources for smaller agencies to reduce the amount of toxic pollutants discharged into the San Francisco Bay and local waterways. Wastewater agency representatives meet monthly to share information, leverage resources, and develop regional activities that help member agencies meet regulatory outreach requirements and BAPPG goals.

2019 COMMITTEE UPDATES

All files pertaining to BAPPG are being added to the BACWA BAPPG webpage. This includes meeting agendas, meeting minutes, reports, presentations, and information on pollutants of concern.

2019-2020 BAPPG officers were selected:

- Chair – Autumn Cleave, San Francisco Public Utilities Commission
- Co-Chair – Robert Wilson, City of Petaluma
- Vice Chair – Joe Neugebauer, West County Wastewater District

CURRENT PROJECT UPDATES

This report serves as an update to BACWA and member agencies for all BAPPG projects, by pollutant, which took place from January 1, 2019, through December 31, 2019.

1. COPPER
2. FATS OILS AND GREASE (FOG)
3. MERCURY AND SILVER
4. PESTICIDES
5. PHARMACEUTICALS
6. TRASH AND WIPES

1. POLLUTANT: COPPER

POLLUTANT DESCRIPTION

Copper pipe corrosion has been a major concern to the wastewater community for more than a decade. For many years, the messages have focused on proper installation, including the use of a water-based flushable flux. In California, there are also alternatives to copper pipe for potable and non-potable installations, such as PEX. Further, copper is a pesticide used in swimming pools and spas and incorporated into fabrics.

KEY MESSAGES

1. Select only ASTM B813 water-flushable flux rather than petroleum-based flux (which is not flushable and increases pipe corrosion rates).
2. Incorporate additional BMPs during design, reaming, cleaning, and building commissioning that will reduce pipe corrosion rate.
3. Seek mitigation options for copper products that are used in swimming pools, spas, and fountain treatments (often drained to sanitary sewer) as well as copper-treated fabrics that are subsequently laundered.

NEXT STEPS

Evaluate the need for updating the copper source analysis for wastewater since the one often cited within BAPPG is a 1996 document incorporating an assumption from a 1994 document. At the August 2015 IAPMO¹ meeting, participants questioned the date of the analysis and suggested that there may be new or different sources at this time. Baywise.org has resources for plumbers that focus on the key messages above. BAPPG plans to renew discussions regarding whether to update plumbing messages and identify additional sources and opportunities for outreach.

2. POLLUTANT: FATS, OILS AND GREASE (FOG)

POLLUTANT DESCRIPTION

FOG is a top priority due to the associated regulatory and financial impacts to member agencies. FOG is a major problem for sewer systems, causing sewer back-ups, sewer overflows onto streets, and foul sewer odors. Because of this, cities often spend millions of dollars a year responding to grease-related sewer blockages and in infrastructure improvements.

KEY MESSAGES

1. Don't pour grease down the drain – collect and recycle used cooking oil

Project	Description	Timeline	Budget
Spanish Holiday Outreach: Fats, Oils, & Grease	Through Univision Radio, BAPPG purchased 15 and 30-second spots on KBRG 100.3 FM that promoted information about proper grease disposal to the South Bay, East Bay, and North Bay. Outreach included: <ul style="list-style-type: none">• Three weeks of radio spots on KBRG 100.3 FM• Calls-to-action to visit Baywise.org	<ul style="list-style-type: none">• November 18-25, 2019• December 16-29, 2019	\$8,000

Results

<ul style="list-style-type: none">• 63 total Spanish radio spots<ul style="list-style-type: none">○ 58 :30-second spots○ 15 :15-second spots

NEXT STEPS

BAPPG is currently discussing moving funding from the Univision Radio FOG campaign to online ads during the 2020 holiday season. It will also continue to look for opportunities to discuss regional best management practice (BMP) and collateral development for mobile food trucks.

3. POLLUTANT: MERCURY AND SILVER

POLLUTANT DESCRIPTION

¹ International Association of Plumbing and Mechanical Officials

Outreach regarding best management practices for dental amalgam and silver fixer waste is essential to ensure member agencies continue to meet regulatory standards and prevent pollution of receiving waters.

KEY MESSAGES

1. Dental amalgam and silver fixer wastes are hazardous and shall not be disposed in dental office sinks.
2. Incorporate BMPs for dental amalgam, silver fixer, and other hazardous wastes within a dental office.
3. The mandated use of BMPs and amalgam separators has significantly decreased the mercury loads into the sewer.
4. As of July 2017, the US EPA is mandating the installation of amalgam separators and the use of several key BMPs.

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	Stephanie Hughes served as a guest speaker in dental assistant / hygienist classes in local colleges throughout the Bay Area.	Calendar Year 2019	\$3,500

Results
<p>Reached a total of 172 students and instructors from January 1, 2019 – December 31, 2019 at the following site visits:</p> <ul style="list-style-type: none"> • San Jose City College (two classes) • College of Marin, Novato (one class) • Foothill College, Los Altos (one class) • Santa Rosa Junior College (one class) • Mt Diablo Adult Ed, Concord (two classes)

NEXT STEPS

Continue to provide the guest speaker to local colleges. The instructors have come to rely on these annual visits and have incorporated BAPPG’s program into their instructional calendar. Further, this is a very relevant audience for other messages, such as wipes, microbeads, and flea control.

4. POLLUTANT: PESTICIDES

POLLUTANT DESCRIPTION

Indoor and outdoor application of pesticides can result in chemical runoff into the sewer systems and receiving waters, leading to lower pollutant removal efficiencies at treatment plants, potential biosolids management and recycled water use limitations, as well as aquatic ecosystem degradation.

KEY MESSAGES

1. Promote integrated pest management and less-toxic products as alternatives to pesticides.
2. Seek alternatives to fipronil and imidacloprid and other topical (collar and spot-on) pet treatments (conducted alternative analysis, completed talking points for veterinarians and currently drafting messages for general public).
3. Work with pesticides regulators to improve their ability to address POTWs during pesticide registration, to support their monitoring efforts, and to implement mitigation when needed.

Project	Description	Timeline	Budget
OWOW	Our Water Our World (OWOW) is a Bay Area- wide outreach program that promotes the use of less-toxic pest control methods and products in the home and garden through local retailers.	Calendar Year 2019	\$10,000

Results	
<ul style="list-style-type: none"> • Continued to develop the scope of the <i>Our Water, Our World</i> materials based on emerging issues and needs. In 2019, developed two new fact sheets – Bed Bugs (English and Spanish versions) and Gophers, Moles, and Voles, and revised a third fact sheet: Pesticides and Water Quality (formerly Pesticides and Water Pollution). • Coordinated program implementation with major chains Orchard Supply Hardware corporate (OSH), Home Depot, and Ace Hardware National. <ul style="list-style-type: none"> • Orchard Supply Hardware corporate (San Jose) Unfortunately, OSH’s parent company, Lowe’s decided to close all of its OSH stores in California and across the country in the fall of 2018. OSH was the first large chain to support the <i>Our Water, Our World</i> Program, adding 100 stores to the program in its first year after the pilot program and being a very engaged partner for the next 20 years of the program. • Home Depot Corporate (Atlanta) directed support of the program with their stores. • Maintained an inventory of the following: fact sheets, shelf tags, literature rack display signage, <i>10 Most Wanted</i> brochures, <i>Pest or Pal Activity Guide for Kids</i>, custom-designed product guide dispensers, and three versions of product guides (Home Depot and generic), from which participating agencies could purchase materials. • Updated less-toxic Product Lists: 3 versions – Master by-pest, Master by-manufacturer, and Home Depot product-by-pest. • Updated / revised Home Depot and General pest calendars to reflect additional pests and products. • Updated / revised Home Depot and General How Products work handout, research new products, and active ingredients. • Made revisions to all training packet handouts – revised and updated information, added new dates and contact. • Revised and updated Herbicide Alternatives handout for Advocates. • Coordinated employee trainings and tabling events at <i>Our Water, Our World</i> stores. • Maintained Our Water, Our World website. Sent user survey to agencies, retailers, IPM Advocates, and others seeking feedback on how the website is used and what improvements are needed. • Provided Ask-the-Expert service – in which the Bio-Integral Resource Center (BIRC) provides 24-hour turnaround on answers to pest management questions. BIRC researched and provided answers to about 44 questions in FY 18-19. • Provided and staffed exhibitor booths and made presentations to attendees: <ul style="list-style-type: none"> • NorCal trade show, San Mateo (February 2019). • Excel Gardeners Dealer Show, Las Vegas (August 2019). • L&L Dealer Show, Reno (October 2019). • Participated in UCIPM Continuing Education for IPM Advocates. • Below are some outputs and outcomes for FY 18-19: <ul style="list-style-type: none"> • 80 <i>Our Water, Our World</i> store trainings. • 638 employees trained at <i>Our Water, Our World</i> stores. 	

- 104 tabling events at *Our Water, Our World* stores.
- 4,608 customers contacted by Advocates at tabling events at stores.
- 44 questions researched and answered by technical expert.
- Home Depot reported that Scott's Miracle Gro increased the sales across each category of their less toxic pesticide product line Nature's Care on average by 12.5% - 30%.
- The sales of Sluggo by Monterey are up approximately 35%.
- The sales of the Copper Soap fungicide by Monterey are up approximately 30%.
- Home Depot continues to increase their less toxic product offerings by 8-12% over the last year.

Final Note: Longtime *Our Water, Our World* Program leader Annie Joseph retired, and her successor was announced. Suzanne Bontempo will be leading the program with Geoff Brosseau going forward. Many thanks are due to Annie for her incredible commitment; and she was the richly-deserved recipient of the Dr. Teng-Chung Wu Award for water quality improvement by the San Francisco Bay Regional Water Board.

Project	Description	Timeline	Budget
Flea & Tick Outreach to Veterinarians	Evaluate flea products with regards to pathways to sewers. Develop and communicate recommendations for pet owners and veterinarians to reduce impact to sewers.	Calendar Year 2019	\$8,500
Dental Assistant / Hygienist Outreach	Insights about proper flea control included as part of dental waste discussion.	Calendar Year 2019	N/A*

Results
<ul style="list-style-type: none"> • Continued the development of outreach messages regarding alternatives to fipronil and imidacloprid and other topical pet treatments. • Conducted a one-hour training at the CWEA P3S conference; engaged the audience regarding alternative flea control options as well as how and where to communicate these messages. • Published newsletter article in the member newsletters for the San Francisco Veterinary Medical Association (VMA) and Alameda County VMA. Following 2018 newsletter articles in Santa Clara VMA, Marin VMA and Contra Costa VMA, this brings us to a total of five Bay Area VMAs that have published BAPPG newsletter articles regarding flea control. • Reached out to the Foothill College Veterinary Technician program. Conducted first training of Vet Tech students regarding flea pet control at Foothill. The topic was quite well received by the 24 students and their instructor. • Developed outreach plans to continue social media campaign and other opportunities to reach the general public, such as via non-profits such as the Sierra Club. • In Fall 2018, updated the dental training to incorporate information regarding flea pet control. In 2019 reached 172 dental trainees and instructors (per Mercury section) • Communicated with the California Department of Pesticide Regulation (DPR) and the San Francisco Estuary Institute (SFEI) to understand the latest insights regarding transport to sewer and fipronil and imidacloprid toxicity.

Project	Description	Timeline	Budget
Regulatory Tracking and Communications	Identify and track pesticide regulatory actions at federal and state level. Communicate with regulators to ensure that wastewater issues are addressed. Seek opportunities to prevent pollution at the source.	Calendar Year 2018	\$30,000

Results
<ul style="list-style-type: none"> • Coordinated with BAPPG to update the list of highest priorities pesticides for BACWA’s attention. Created an updated pesticide watch list for tracking purposes, including a major update to provide a comprehensive list of swimming pool chemicals to support efforts toward having every product include new \ label language around contacting local sanitation agency prior to discharge (see attached memorandum). • Tracked pesticide-related regulatory activities by EPA and DPR and new scientific information that have significant potential to affect BACWA member agencies. Notified BAPPG of such items as they arose. Provided a “crystal ball” near-term priorities tracking summary, updated monthly or bimonthly. • On the basis of regulatory documents, relevant scientific information, and the regulatory context, made recommendations regarding regulatory participation or other follow-up steps on multiple EPA and DPR actions relating to pesticides including copper, pyrethroids, imidacloprid and other neonicotinoids, fipronil, other pet flea control chemicals, swimming pool chemicals, and root control chemicals. • Supported preparation of the following BACWA letters to EPA on pesticides: <ul style="list-style-type: none"> ○ Pyrethroid insecticides – request for extension of comment period to provide sufficient time to review EPA’s risk mitigation proposal (comments on the proposal itself are due in 2020). ○ Pet flea control chemicals (Amitraz) - comments on EPA’s risk assessment and recommendations for EPA’s consideration in development of risk mitigation. This letters focused on EPA’s omission of on-pet flea/tick treatments and options for risk mitigation for pet treatments. ○ Swimming pool chemicals – comments on EPA’s risk assessment and recommendations for EPA’s consideration in development of risk mitigation for chlorine gas and zinc-containing swimming pool products; proposed decisions on Zinc & salts. These letters continued BACWA’s work to ensure that EPA requires applicable products to carry new swimming pool, spa, and fountain product label language to direct owners to contact their local sanitation agency prior to discharging treated water. ○ Root control chemicals – comments on EPA’s risk assessment and recommendations for EPA’s consideration in development of risk mitigation (metam sodium). This letter focused on a request that EPA modify its existing pre-application POTW notification to require notification at least 24 hours prior to applications to protect worker safety. ○ Endangered Species Act (ESA) Pesticides Risk Assessment Proposed Procedures – comments on EPA’s proposed procedures to integrate ESA review of pesticides into its periodic “registration reviews”, requesting significant changes in the scientific approach to address glaring errors, such as the proposed omission of all indoor use and all POTW discharges from these reviews.

- Coordinated with and provided technical support for NACWA and Water Board, which also sent letters on almost all of the above items.
- Based on existing open lines of communication with pesticide regulators, pesticide manufacturers, and scientists researching pesticides in wastewater, notified BAPPG of important information obtained through these contacts.
- Provided technical information to support BACWA’s coordination with NACWA on Federal pollution prevention topics, including pesticides and Toxic Substances Control Act (TSCA) reform.
- Tracked TSCA reform implementation, reviewed draft regulations on chemical prioritization and risk assessments from POTW perspective, and provided key points and other technical support for BACWA’s coordination with NACWA on providing comments on these two regulations.
- Coordinated and provided scientific support for communications with EPA and DPR about wastewater pesticides discharges, wastewater pesticides monitoring, and improving wastewater pesticides predictive modeling to support registration decisions. Continued semi-annual informal information-sharing teleconference meetings between BACWA’s pesticide workgroup and DPR’s wastewater experts.
- Evaluated outcomes of BACWA input to EPA and DPR and briefed BAPPG/BACWA pesticides leads on these outcomes to assess effectiveness of BACWA’s work. The following evaluations are available on the BAPPG website:
 - Swimming pool chemicals: Zinc & Salts
 - Root control chemicals: Dichlobenil and Metam Sodium
 - Pet flea control: Indoxacarb and Spinetoram
 - Others: TTPC
- Developed an agenda and materials for a monthly BACWA Pesticides Workgroup teleconference meeting to determine appropriate actions and to coordinate actions with NACWA and San Francisco Bay Regional Water Board staff. Provided staff support during the meetings and an action item list after each meeting.

Project	Description	Timeline	Budget
Flea & Tick Outreach	Keough Consulting ran a regional online advertising campaign with Division D to educate pet owners throughout the Bay Area about the importance of switching from topical treatments to chewables. This campaign utilized newly developed online ad artwork.	May 10-24, 2019	\$5,580

Results
<p>Online and Mobile Ads</p> <ul style="list-style-type: none"> • 966,925 impressions, including 41,950 bonus impressions • 1,989 clicks <p>Website Traffic</p> <p>Visits to Baywise.org from May 10 1-24:</p> <ul style="list-style-type: none"> • 1,327 visits from 1,324 unique users • 1,774 unique page views <p>When the regional online campaign was not running, website traffic to Baywise.org was significantly lower.</p>

NEXT STEPS

BAPPG plans to continue funding OWOW to conduct regional IPM and less-toxic product outreach and education. BAPPG will continue working with Dr. Kelly Moran and Tammy Qualls, P.E. to track opportunities to comment on pesticide registration and evaluation activities by U.S. EPA and the California Department of Pesticide Regulation, with consideration of water quality impacts via the POTW pathway. BAPPG will work with SGA and Stephanie Hughes to develop a second round social media pitch to the general public scheduled for the spring of 2020 and to seek other outreach alternatives, such as reaching out to local Sierra Club and similar audiences. Based on input from a former SFEI staff member who is now a veterinary technician, will reach out to several of the larger Bay Area veterinary clinics to seek their understanding and support of BAPPG flea control messages regarding less toxic flea and tick treatment control. BAPPG will also return to Foothill College to meet with the 2020 veterinary technician students, and will seek similar engagements with the Carrington College vet tech programs. BAPPG will coordinate messages and materials with the OWOW campaign and with its ongoing outreach to veterinary professionals.

5. POLLUTANT: PHARMACEUTICALS

POLLUTANT DESCRIPTION

Pharmaceuticals can enter water resources and the San Francisco Bay through improper disposal into wastewater streams (e.g., flushing pharmaceuticals down the toilet). Pharmaceuticals have endocrine disrupting properties, and unintended exposure of pharmaceuticals to aquatic life and humans can lead to adverse health effects. Outreach surrounding safe disposal of pharmaceuticals is essential to ensure member agencies meet regulatory standards and prevent pollution of receiving waters. There is potential to combine water quality messaging with broader messaging surrounding health and safety to target wider audiences while still ensuring that safe disposal is the key take-away.

KEY MESSAGES

1. No Drugs Down the Drain
2. Don't Rush to Flush – Meds in the Bin, We All Win!
3. Prevent Accidental Poisoning, Drug Abuse and Water Pollution by disposing medicines properly

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	Insights about proper pharmaceutical disposal included as part of dental waste discussion.	Calendar Year 2019	N/A*

**Included above with mercury*

Results
Reached 172 dental trainees and instructors (per Mercury section).

6. POLLUTANT: TRASH AND WIPES

POLLUTANT DESCRIPTION

Trash is a top priority due to the improper disposal of non-woven wipes and other non-flushable trash items such as hair, ear swabs and all products claiming to be biodegradable or flushable. Most consumer wipes products (labeled flushable or not) take much more time to disperse in water than toilet paper, which has caused issues for many POTWs in the Bay Area, including damage to pumping station equipment, grinders and other infrastructure, stoppages, and sanitary sewer overflows. Wipes and other

non-dispersibles are also a safety issue for pump station employees that have suffered needle sticks from “deragging” pumps clogged with wipes.

KEY MESSAGES

1. Wipes Clog Pipes!
2. Toilets Aren’t Trashcans

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	As part of the dental waste discussion, speaker includes insights about microbeads and “flushable” wipes. This audience is very receptive to all BAPPG messages. More than 95% female, they are typically the primary purchaser for their families and as medical professionals, they are concerned about health and water quality.	Calendar Year 2019	N/A*

**Included above with mercury*

Results
Reached 172 dental trainees and instructors (same audience reached as “Mercury” results above).

Project	Description	Timeline	Budget
Toilet’s Aren’t Trash Cans / Wipes Clog Pipes!	SGA implemented a regional Google Ads campaign to raise general awareness among the residents of several counties that wet wipes clog pipes, cannot be flushed in toilets, and must be disposed of in trash cans. The campaign ran during P2 week in September and sought to raise awareness by turning a short video produced by Central Contra Consta Sanitary District, a member agency of BACWA, into a Youtube advertisement. The video can be found here: bit.ly/WipesClogPipesBAPPG	September 15-22, 2019	\$8,000

Results
<p>Google Ads:</p> <ul style="list-style-type: none"> • Total video views = 145,268 • Impressions = 384,864 • Average Cost Per View = \$0.03 • View Rate = 37.75% • Views by County <ul style="list-style-type: none"> • Santa Clara County = 44,041 • Alameda County = 34,605 • Contra Costa County = 19,145 • San Francisco = 17,390 • San Mateo County = 9,845 • Solano County = 8,844 • Sonoma County = 7,303 • Napa County = 1,952

- A majority of views came from people in the following, mutually exclusive, categories: ages 18-24, men, either the lower 50% or top 10% of Household Incomes.

MATERIALS



Screengrab of the video ad as it appears after approximately 5-seconds.



Image from Toilet's Aren't Trash Cans / Wipes / No Drugs online and mobile campaign with Division D

NEXT STEPS

BAPPG will continue to include messages about trash and wipes when meeting with medical, hospice, and dental professionals and trainees. BAPPG will also distribute collateral during professional presentations and regional outreach events and continue outreach campaigns in conjunction with National P2 Week to continue stressing “Wipes Clog Pipes!” message.