

A Committee of Bay Area Clean Water Agencies

2018 Annual Report

Covering reporting period of 1/1/18 – 12/31/18









BAPPG Chair: Autumn Cleave/Robert Wilson Prepared by: Joe Neugebauer

BAPPG Co-Chair: Debbie Phan

BAPPG Vice Chairs: Joe Neugebauer and

Simret Yigzaw

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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.

2018 COMMITTEE UPDATES

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

2018-2019 BAPPG officers were selected:

- Co-Chair Autumn Cleave, San Francisco Public Utility District
- Co-Chair Robert Wilson, City of Petaluma
- Co-Vice Chair Joe Neugebauer, West County Wastewater District
- Co-Vice Chair Simret Yigzaw, City of San Jose

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, 2018, through December 31, 2018.

- 1. COPPER
- 2. FATS OILS AND GREASE (FOG)
- 3. MERCURY AND SILVER
- 4. PESTICIDES
- 5. PHARMACEUTICALS
- TRICLOSAN
- 7. 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.

Project	Description	Timeline	Budget
EPA Review of Copper	Review and comment	U.S. EPA Completed in	Prior FY
Based Pesticides	upon EPA registration	2018	
	reviews		

Results

In November 2018, U.S. EPA issued its interim decision, completing the Copper Pesticides Registration Review process. U.S. EPA finalized its requirement that users contact local agencies and follow their instructions for draining copper-treated swimming pools, spas, and fountains to avoid copper pollution and collection system backup.

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. In addition, BAPPG plans to renew discussions regarding whether to update plumbing messages.

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	Through Univision Hispanic Radio, KBRG 100.3	November 19 –	\$8,140
Holiday	FM, BAPPG promoted messages of proper grease	25 and December	
Outreach	disposal to the South Bay, East Bay, and North Bay.	17 - 30,	
	Outreach included:	2018	
	 Three weeks of radio spots on KBRG 		
	 Calls-to-action to visit Baywise.org 		

	Results
•	101 total Spanish radio spots
	o 21:30 spots
	o 30:15 spots
	o 50:15 BONUS spots



NEXT STEPS

BAPPG will continue its FOG campaign with Univision in 2019. 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

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

- 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	Stephanie Hughes served as a guest speaker in dental	Calendar	\$3,500
Assistant /	assistant / hygienist classes in local colleges throughout	Year 2018	
Hygienist	the Bay Area.		
Outreach			
Dental	Stephanie Hughes reviewed and edited the Dental web	Calendar	\$800
Resources	text of Baywise.org and coordinated the reviews/edits	Year 2018	
	with Tim Potter (BACWA dental lead) and Teresa Pichay		
	(long-time CA Dental Association contact). The text now		
	provides details on the Federal EPA requirements for		
	dental facilities and references resources developed by		
	the California Dental Association and American Dental		
	Association.		

Results

Reached a total of 160 students and instructors from January 1, 2018 – December 31, 2018 at the following site visits:

- 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 (one class)

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 triclosan.

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 2018	\$10,000

Results

- Continued the makeover of the look and content of the *Our Water, Our World* materials. The largest edits were to the Flea fact sheet, which was developed with updated information from Stephanie Hughes.
- Coordinated program implementation with major chains Home Depot, Orchard Supply Hardware (OSH), and Ace Hardware National.
 - OSH Corporate (San Jose) made a decision to fully 'own' the program.
 - 1. OSH redesigned the look of their stores to be more modern, with simpler, cleaner, muted graphics.
 - OSH categorized all pesticides in one of three categories organic, natural, or synthetic. OSH planned to deemphasize synthetic pesticides and stop offering their own brand by 2019. OSH wanted to promote the organic and natural pesticides and to do so in a way that fits in with their new look.
 - 3. OSH developed their own shelf tags with that modern look (see attachments) to distinguish the organic and natural products on their shelves (there is no shelf tag for synthetic pesticides).
 - 4. To create the cleaner look on the shelf, the OSH tags replace the *Our Water, Our World* shelf tags.

So, those developments lead to two changes to *Our Water, Our World* display materials in OSH stores:

- 1. Shelf tags removal of all *Our Water, Our World* shelf tags from OSH stores.
- 2. Literature rack header sign replacement of the current header signs with the new header signs on all literature racks in OSH stores. The new sign showed OSH's new



tags rather than the OWOW shelf tag (see attachments showing the current and new header signs displayed with the product guide dispensers).

- 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, 10 Most Wanted brochures, Pest or Pal Activity Guide for Kids, custom-designed product guide dispensers, and three versions of product guides (OSH, Home Depot, and generic), from which participating agencies could purchase materials.
- Updated less-toxic Product Lists: 2 versions –OSH product-by-pest, and Home Depot product-by-pest.
- Coordinated employee trainings and tabling events at *Our Water, Our World* stores.
- Compiled information and provided outreach specific to current issues:
 - Mosquito control and the Zika virus.
 - Asian Citrus Psyllid and Huanglongbing bacterium.
 - Ligurian Leafhopper.
- Maintained Our Water, Our World website.
- Provided Ask-the-Expert service, which provides 24-hour turnaround on answers to pest management questions.
- Provided and staffed exhibitor booths and made presentations to attendees:
 - Excel Gardeners Dealer Show, Las Vegas,
 - L&L Dealer Show, Reno, and
 - NorCal trade show, San Mateo.
- Recruited, trained, and mentored a second class of IPM Advocates.
- Participated in UCIPM Continuing Education for IPM Advocates.
- Although effectiveness information need only be provided in the 2019 annual reports (C.9.g), below are some outputs and outcomes for FY 17-18:
 - 124 Our Water, Our World store trainings.
 - 1,038 employees trained at *Our Water, Our World* stores.
 - 113 tabling events at *Our Water, Our World* stores.
 - 7,001 customers contacted by Advocates at tabling events at stores.
 - Increases over last year in trainings by 2%, trainees by 6%, and customers reached at tabling events by 6%.
 - Home Depot reported that Scott's Miracle Gro increased the sales of their less toxic pesticide product line Nature's Care by 5%.
 - Home Depot continues to increase their less toxic product offerings by 5-10% over the last year.
- OSH less toxic products increased in units sold by 4% over last year's numbers sold.

Project	Description	Timeline	Budget
Flea & Tick	Evaluate flea products with regards to pathways to	Calendar	\$5,500
Outreach to	sewers. Develop and communicate recommendations	Year 2018	
Veterinarians	for pet owners and veterinarians to reduce impact to		
	sewers.		

Results

• Continued the development of outreach messages regarding alternatives to fipronil and imidacloprid and other topical pet treatments.



- Continued a dialogue regarding fipronil and imidacloprid and alternative flea management strategies with the California Veterinary Medical Association.
- Created two web pages on baywise.org, one for consumers/pet owners and one for veterinary professionals.
- Initiated dialogue with Bay Area veterinary professional groups.
- Conducted outreach to Bay Area veterinary medical associations, seeking speaking engagements and providing newsletter articles
- Spoke at a member meeting of the San Francisco Veterinary Medical Association (VMA) (approx. 80 attendees). Published newsletter articles in the member newsletters for the Santa Clara VMA, Marin VMA and Contra Costa VMA.
- In Fall 2018, updated the dental training to incorporate information regarding flea pet control. Subsequently reached 75 dental trainees and instructors (per Mercury section)
- Conducted an internal training at the October BAPPG meeting to ensure that members were up to date with the latest information about flea control.
- 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	Identify and track pesticide regulatory actions at	Calendar	\$34,000
and Communications	federal and state level. Communicate with	Year 2018	
	regulators to ensure that wastewater issues are		
	addressed. Seek opportunities to prevent pollution		
	at the source.		

Results

- Coordinated with BAPPG to update the list of highest priorities pesticides for BACWA's attention. Created an updated pesticide watch list for tracking purposes.
- 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:
 - Neonicotinoid Insecticides (Clothianidin, Thiamethoxam) comments on EPA's risk assessments that shared monitoring data and other relevant scientific information, identified potential POTW discharges, and requested scientific evaluation of POTW discharges and risk mitigation if necessary.
 - Pet flea control chemicals (Pyriproxyfen, Dinotefuran) comments on EPA's risk assessment and recommendations for EPA's consideration in development of risk mitigation. These letters focused on EPA's omission of on-pet flea/tick treatments and options for risk mitigation for pet treatments.
 - O Swimming pool chemicals proposed decisions on Boric Acids & Salts



(BACWA) and Hypchlorites (NACWA only). 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.

- Dichlobenil comments on EPA's proposed risk mitigation decision. This letter focused on a request that EPA modify its proposed pre-application POTW notification to require notification at least 24 hours prior to applications to protect worker safety.
- Coordinated with and provided technical support for NACWA and Water Board, which also sent letters on almost all of the above items.
- Coordinated City of Palo Alto emailed request to DPR responding to DPR's public
 notice on receipt of the registration application for a fipronil product proposed for
 use inside bathroom traps, requesting that DPR's Surface Water Protection
 Program carefully evaluate implications of the fipronil discharges from this
 potential product.
- 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. Developed new summary format for tracking and outcome evaluation in mid-2018. See the following evaluations **attached**:
 - o Top priority chemicals: Copper, Nanosilver, Transfluthrin (pyrethroid)
 - o Swimming pool chemicals: Boric Acid/Salts
 - o Root control chemicals: Dichlobenil
 - Pet flea control: Indoxacarb and Pyriproxyfen
- 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.

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 continue to work with O'Rorke and Stephanie Hughes to develop a regional general public pitch to accompany the anticipated California Department of Pesticide Regulation findings



on the toxicity of fipronil and imidacloprid in flea and tick treatment products using the newly developed talking points. BAPPG will coordinate such messages and materials with the OWOW campaign and with its ongoing outreach to veterinary professionals.

MATERIALS



Chinook Book mobile ads

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 /	Insights about proper pharmaceutical disposal	Calendar	N/A*
Hygienist Outreach	included as part of dental waste discussion.	Year 2018	

^{*}Included above with mercury

Re	sults
Reached 160 dental trainees and instructors (per M	ercury section).

Project	Description	Timeline	Budget
Toilet's Aren't	O'Rorke implemented a regional online and mobile	September	N/A*
Trash Cans &	advertising campaign to educate residents about the	17 - 23,	
NDDD	importance of never flushing wipes or drugs down the	2018	
outreach	toilet. The campaign coincided with P2 week in		
	September, and ads will run again in the Spring to		



during P2 week	coincide with Earth Day activities. O'Rorke utilized online ad artwork developed by CCCSD, and a No	
	Drugs Down the Drain ad developed for BAPPG. • Division D Online and Mobile ads	

^{*}Included below with Trash and Wipes

Results

Division D online and mobile ads

- 1,113,737 impressions
- 2,540 clicks
- .23% CTR
- 1,740 visits and 2,240 page views from 1,639 users
- For comparison, the site received only 450 visits and 766 page views from 419 unique users visits during the entire month of August 2018.

MATERIALS



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

6. POLLUTANT: TRICLOSAN

POLLUTANT DESCRIPTION

Triclosan is found in various consumer products and has been linked to a range of adverse health and environmental effects. Although the US Food and Drug Association (FDA) has now banned triclosan from hand soaps (effective September 2017), triclosan is allowed in other consumer products.

KEY MESSAGES

1. Targeted toward mothers and primary household purchasers

Project	Description	Timeline	Budget
Dental Assistant /	Insights about proper pharmaceutical disposal	Calendar	N/A*
Hygienist Outreach	included as part of dental waste discussion.	Year 2018	

^{*}Included above with mercury and pharmaceuticals



Results

Reached 85 dental trainees and instructors (per Mercury section). In Fall 2018, triclosan was removed from the Dental presentation in order to include flea medications in the presentation. While triclosan remains in some consumer products, it is not as visible to consumers as it once was.

7. 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	As part of the dental waste discussion, speaker includes	Calendar	N/A*
Assistant /	insights about microbeads and "flushable" wipes. This	Year 2018	
Hygienist	audience is very receptive to all BAPPG messages. More		
Outreach	than 95% female, they are typically the primary purchaser		
	for their families and as medical professionals, they are		
	concerned about health and water quality.		

^{*}Included above with mercury

Results

Reached 160 dental trainees and instructors (same audience reached as "Mercury" results above).

Project	Description	Timeline	Budget
Toilet's	O'Rorke ran a regional online advertising campaign to	April 16 -	\$1,500
Aren't Trash	educate residents about the importance of never flushing	22, 2018	
Cans / Wipes	wipes down the Toilet. O'Rorke utilized online ad		
	artwork developed by CCCSD for this campaign.		
	Division D Online and Mobile ads		

Results

- 430,616 impressions
- 818 clicks
- .19% CTR



- 720 visits and 924 page views from 664 unique users
- For comparison, the site received only 336 visits and 598 page views from 300 unique users during the entire month of March 2018.

MATERIALS



Image from Toilets Aren't Trashcans Division D online and mobile ads.

Project	Description	Timeline	Budget
Toilet's Aren't	O'Rorke implemented a regional online and mobile	September	\$3,750
Trash Cans &	advertising campaign to educate residents about the	17 – 23,	
NDDD	importance of never flushing wipes or drugs down the	2018	
outreach	toilet. The campaign coincided with P2 week in		
during P2	September, and ads will run again in the Spring to		
week	coincide with Earth Day activities. O'Rorke utilized		
	online ad artwork developed by CCCSD, and a No		
	Drugs Down the Drain ad developed for BAPPG.		
	• Division D Online and Mobile ads		

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MATERIALS



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. BAPPG will run additional "Wipes Clog Pipes" online and mobile ads with Division D in April of 2019 to coincide with Earth Day.