



BAY AREA POLLUTION PREVENTION GROUP

A Committee of Bay Area Clean Water Agencies

2016 Annual Report

Covering reporting period of 1/1/16 – 12/31/16



BAPPG Chair: Robert Wilson
BAPPG Co-Chair: James Parrish
BAPPG Vice Chairs: Doug Dattawalker and Joe Neugebauer

Prepared by: Joe Neugebauer
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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.

2016 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.

2016-2017 BAPPG officers were selected:

- Chair – Robert Wilson, City of Petaluma
- Co-Chair – James Parrish, Regional Water Quality Control Board
- Co-Vice Chair – Doug Dattawalker, Union Sanitary District
- Co-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, 2016, through December 31, 2016.

1. COPPER
2. FATS OILS AND GREASE (FOG)
3. MERCURY AND SILVER
4. PESTICIDES
5. PHARMACEUTICALS
6. 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 pool, spa, and fountain treatments (often drained to sanitary sewer) as well as copper-treated fabrics that are subsequently laundered.

Project	Description	Timeline	Budget
Outreach to Plumbers Apprentices, and Building Inspectors	Offered to provide presentations to plumbing unions and building inspector associations about plumbing installation BMPs.	Calendar Year 2016	\$500
EPA Review of Copper Based Pesticides	Review and comment upon EPA registration reviews	October 2016	\$1,500

Results
<ul style="list-style-type: none">• Supported one presentation at Laney Community College, Oakland (15 students) about our flux and flushing BMPs.• During the public comment period of the U.S. EPA Review of Pesticides, asked that U.S. EPA evaluate risks and examine risk mitigation options for Copper products that are used in swimming pool, spa, and fountain treatments because pools, spas, and fountains are often discharged to POTWs in lieu of discharging to gutters/storm drains, and fabric treatments and subsequent discharges to POTWs during washing of the treated end product (e.g., clothing).

Next Steps

BAPPG has been delivering the copper plumbing BMP messages for more than a decade, yet BAPPG learned in 2013 that the “best practice” of selecting water-flushable flux (“Key Message #1, and consistent with the Universal Plumbing Code standard) is being virtually ignored throughout the plumbing sector. In addition, in 2014 Stephanie Hughes completed an analysis of copper versus PEX from life cycle and worker safety perspectives that included information to support the use of PEX installations. These findings initiated discussions within BAPPG regarding whether to update plumbing messages.

Prior to continuing or developing outreach actions, it may be appropriate to update the copper source analysis for wastewater. The copper source analysis often cited within BAPPG is a 1996 document incorporating an assumption from a 1994 document. At the August 2015 IAPMO meeting, participants questioned the date of the analysis and suggested that there may be new or different sources at this time.

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	Through Univision Hispanic Radio, KBRG 100.3 FM, BAPPG promoted messages of proper grease disposal to the South Bay, East Bay and North Bay. Outreach included: <ul style="list-style-type: none">• Radio spots on KBRG• Calls-to-action to visit Baywise.org	November – December 2016	\$8,000

Results
<ul style="list-style-type: none">• 98 :30 Spanish radio spots• 30 :15 BONUS Spanish radio spots• 128 online streaming radio spots• 256 total campaign spots• 1,383,900 radio impressions• 13,839 streaming radio impressions

Next Steps

In addition to continuing BAPPG's FOG campaign with Univision, BAPPG plans to host a joint BAPPG / BACWA Pretreatment Committee meeting to present on mobile food trucks and discuss opportunities surrounding regional best management practice (BMP) and collateral development.

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

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.

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 2016	\$4,000

Results

Reached a total of 164 students and instructors from January 1, 2016 – December 31, 2016 at the following site visits:

- San Jose City College (one class)
- Santa Rosa Jr. College (one class)
- College of Marin, Novato (one class)
- Foothill College, Los Altos (two classes)
- Mt Diablo Adult Ed, Concord (two classes)

In December 2016, the Dental presentation was updated to reflect the new EPA Dental Rule-Making as well as the FDA's September 2016 ban of triclosan, triclocarban and 17 other antimicrobials in hand soaps and body washes (effective September 2017).

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

Improper 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 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 other topical (collar and spot-on) pet treatments (conducted alternative analysis and currently drafting messages)

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 2016	\$10,000

Results
<ul style="list-style-type: none">• Coordinated program implementation with major chains Home Depot, Orchard Supply Hardware (OSH), and Ace Hardware National.• Created and staffed an educational booth at one of the major trade shows where information is provided to retailers that affects their product buying decisions.• Provided print and web advertising – Chinook Coupon Book.• Maintained OWOW website.• Provided Ask-the-Expert service—which provides 24-hour turnaround on answers to pest management questions.• Provided on-call assistance (e.g., display set-up, training, IPM materials review) to specific stores (e.g., OSH, Home Depot).• Continued to work with select local agencies and with Home Depot to implement, a pilot enhanced program in 10 Home Depots in the greater Bay Area and Sacramento. The enhanced program was implemented primarily by the IPM Advocates.• Developed and conducted advanced regional trainings for Home Depot.

Project	Description	Timeline	Budget
Develop Flea & Tick Talking Points	Evaluate flea products, comparing pathways to sewers and develop updated recommendations to reduce impact to sewers.	Fall 2016	\$3,000

Results			
<ul style="list-style-type: none"> Evaluated spot versus topical pet treatments for fleas and reviewed available data regarding pathways to sewersheds. Discussed findings with OWOW to ensure coordination as new insights inform updates in recommendations to the public. Completed an analysis of topical pet treatments and developed an alternative analysis which included a variety of mechanical methods as well as oral pet treatments. Gave a briefing to BAPPG (October 2016) in which next steps were discussed. Initiated the development of outreach messages regarding alternatives to fipronil and other topical pet treatments. Initiated a dialogue regarding fipronil and alternative flea management strategies with the California Veterinary Medical Association. Communicated with the California Department of Pesticide Regulation (DPR) via a conference call (December 2016) to present our findings regarding flea control options and understand the latest insights from DPR regarding transport to sewer and fipronil toxicity. 			

Project	Description	Timeline	Budget
Regulatory Tracking and Communications	Identify pesticide regulatory actions at federal and state level. Communicate with regulators to ensure that wastewater issues are included in the analyses.	Calendar Year 2016	\$32,495

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 pesticides watch list for tracking purposes. Provided a "crystal ball" schedule of anticipated pesticide regulatory activities on these pesticides. Prepared a detailed tracking spreadsheet for EPA activities, with docket numbers and EPA contact emails, and a near-term priorities tracking summary, updated monthly or bimonthly. 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. 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 fipronil. When so directed, provided key points for comments and reviewed draft comment letters by BACWA and its allies.

- 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 TSCA reform.
- 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. Arranged multiple teleconference meetings with EPA and DPR to discuss wastewater modeling procedural gaps. Established and implemented plan for semi-annual informal information-sharing teleconference meetings between BACWA's pesticide workgroup and DPR's wastewater experts.
- Engaged in scientific and management conversations with both EPA and DPR around the new scientific evidence linking pet flea control treatments and fipronil and imidacloprid in POTW effluent.
- Prepared and gave presentation (requested by US EPA's lead on wastewater pesticide risk assessments) in the "Environmental Risk Assessment of Down-the-Drain Chemicals" symposium at the 2016 Fall American Chemical Society meeting in Philadelphia, PA in August. Participated in this and related wastewater sessions.
- 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.
- Gave briefing to BACWA Board (May 2016) and BAPPG (April 2016) on pesticides in wastewater, including watch list, current scientific and regulatory activities, evaluation of outcomes of BACWA's regulatory engagement, regulatory outlook for next few years, and recommended next steps.
- Submitted a letter to the EPA regarding malathion, a pesticide used for lice treatment that may impact activated sludge systems. The letter identified this indoor use that was not included in the draft analysis. It also included detailed comments on this pilot of a problematic new pesticide risk assessment format, including a discussion identifying the need for a typical risk assessment in addition to the Endangered Species Act biological evaluation that was submitted for public comment.
- Submitted a letter to EPA regarding spinetoram, a pesticide used in a spot-on treatment for cats. Submitted a letter to EPA regarding flumethrin, a pesticide in pet collars. In both letters sought to explain the transport route of these chemicals to the sanitary sewer, providing the most recent scientific studies.
- Completed a Pesticide Regulatory Update fact sheet for BACWA members and distributed the insights at the Annual Meeting in January 2016.
- 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 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 O'Rourke and Stephanie Hughes to develop a regional pitch for winter 2017 to accompany the California Department of Pesticide Regulation findings on the toxicity of fipronil in flea and tick treatment products using the newly developed talking points, and coordinate such messages and materials with the OWOW campaign.

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/Hygienist Outreach	Insights about proper pharmaceutical disposal included as part of dental waste discussion.	Calendar Year 2016	N/A*

**Included above with mercury*

Results
Reached 164 dental trainees and instructors (per Mercury section)

Project	Description	Timeline	Budget
No Drugs Down the Drain	O'Rorke developed and ran Facebook online ads to educate residents about the proper way to dispose of unwanted medications.	April-May 2016	

Results
<ul style="list-style-type: none">• 913,925 impressions• 1,617 clicks• .17% CTR (click through rate)

Next Steps

BAPPG will consider reaching out to other health care professionals or perhaps to nursing or physician-assistant training programs (parallel to our dental outreach program). Coordinate and build upon messaging associated with pharmacy medicine collection bin placement projects in member agency areas. BAPPG will also investigate options for printing proper disposal messaging on privacy bags distributed at pharmacies throughout the region.

Materials

Never flush unwanted medicine!

[Click here](#) to find safe disposal locations near you.



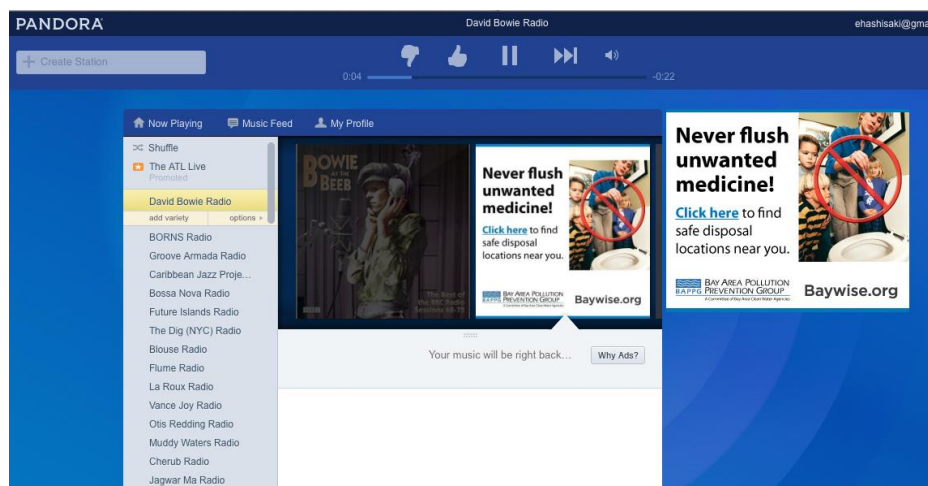


Baywise.org

Bring unwanted medicine to a drop-off location near you.



BAYWISE.ORG



Facebook and Pandora online ads

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. Though currently an unregulated pollutant, member agencies recognize that effective triclosan outreach may help residents recognize other constituents of emerging concern such as microbeads, and be more accepting to regulatory changes.

Key Messages

1. Targeted towards mothers and primary household purchasers

Project	Description	Timeline	Budget
Dental Assistant / Hygienist Outreach	Stephanie Hughes includes insights on triclosan during pharmaceutical and dental waste disposal discussions.	January-June 2016	N/A*

*Included above with mercury and pharmaceuticals

Results

- Reached 164 dental trainees and instructors (per Mercury section)

Project	Description	Timeline	Budget
Personal Care Product Outreach	O'Rorke developed and ran Facebook and Pandora online ads to educate residents about the negative impacts of triclosan.	April – May 2016	\$3,000

Results	
Facebook Online Ads <ul style="list-style-type: none"> Ran 4/25 – 5/29 913,925 impressions 1,617 clicks, .17% CTR 	Pandora Ads <ul style="list-style-type: none"> Ran 5/2 – 5/8 & 5/23 – 5/29 484,480 impressions 623 clicks, .26% CTR

Next Steps

BAPPG will develop social marketing campaign and tailored collateral targeting outreach toward specific products and consumer groups.

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 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, are concerned about health and water quality.	January-June 2016	N/A*

**Included above with mercury*

Results
<ul style="list-style-type: none"> Reached 164 dental trainees and instructors (same audience reached as “Mercury” results above)

Project	Description	Timeline	Budget
Toilet's Aren't Trashcans	O'Rourke developed and submitted an article to parenting magazines and developed a poster on multi-pollutants for parents groups.	January – June 2016	\$3,000

Results
<ul style="list-style-type: none"> • Pitched article to local parenting publications • Covered by the Berkeley Parents Network

Materials

Toilets Aren't Trashcans

To keep pipes unclogged, never flush wet wipes, cotton swabs or pretty much anything else, even if the packaging says otherwise!

"Flushable" wipes should NOT be flushed.



Put these items in the proper bin, **NOT THE TOILET:**

- Wet wipes, even those labeled 'flushable'
- Cotton swabs
- Dental floss
- Feminine hygiene products
- Paper towels

For more information on pollution prevention programs visit Baywise.org



Toilets Aren't Trashcans poster for parent groups

Project	Description	Timeline	Budget
Toilet's Aren't Trashcans	O'Rourke developed Mobile and Print ads designed for BAPPG's placements with Chinook Book	January – June 2016	\$3,000

Materials

Toilets Aren't Trashcans

Only flush human waste and toilet paper.





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Baywise.org

Toilets Aren't Trashcans Mobile Chinook Book Ad

WIPES CLOG PIPES.

"Flushable" wipes should **NOT** be flushed.





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Baywise.org

NEVER FLUSH UNWANTED MEDICINE!

Visit Baywise.org to find safe disposal locations near you.





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Toilets Aren't Trashcans Print Chinook Book Ad

Project	Description	Timeline	Budget
Wipes outreach during P2 week	<p>O'Rorke implemented a regional advertising campaign to educate residents about the importance of never flushing wipes.</p> <ul style="list-style-type: none"> • Division D Online and Mobile ads • Facebook ads 	September 18 – 24, 2016	\$3,000

Results	
<p>Division D online and mobile ads</p> <ul style="list-style-type: none"> • 578,477 impressions • 1,163 clicks • .20% CTR 	<p>Facebook Ads</p> <ul style="list-style-type: none"> • 308,275 impressions • 490 clicks • .16% CTR
<p>Visits to Baywise.org from September 18 - 24</p> <ul style="list-style-type: none"> • 1,412 visits from 1,270 unique users • 83.7 percent of visits were from Division D and Facebook online ads • 1,916 unique page views 	

Materials



Online ads from CCCSD

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.

NEXT MEETING DATE: 02/01/2017

NEXT REPORT TO BE DELIVERED: Mid July 2017