



BAY AREA POLLUTION PREVENTION GROUP

A Committee of Bay Area Clean Water Agencies

2009/2010 Annual Newsletter
Volume 3, Issue 1

September 2010

About this Newsletter

This newsletter summarizes the great work and collaboration achieved by the Bay Area Pollution Prevention Group (BAPPG) in fiscal year 2009/2010. This newsletter was created by Jen Jackson at East Bay Municipal Utility District (EBMUD) and edited by Melody LaBella at Central Contra Costa Sanitary District (CCCSD), along with contributions from many project champions hailing from around the Bay Area.

About the BAPPG

The BAPPG, a committee of the Bay Area Clean Water Agencies (BACWA), is comprised of 43 wastewater agencies that discharge into and around San Francisco Bay. BAPPG's mission is to coordinate dischargers' pollution prevention (P2) activities in order to reduce the amount of toxic pollutants discharged into San Francisco Bay and local waterways.

Bay Area Publicly Owned Treatment Works (POTW) representatives charged with P2 activities for their agencies meet regularly to share information and develop regional activities that help prevent pollutants from entering local and regional watersheds. Regional P2 projects range from source identification, source control, training for member staff and trades workers and public education campaigns and events. BAPPG coordinates outreach projects and campaigns with member agencies and regional organizations such as the Bay Area Stormwater Management Agencies Association (BASMAA) and the Regional Integrated Pest Management (IPM) Workgroup to leverage our approximately \$75,000 annual budget.

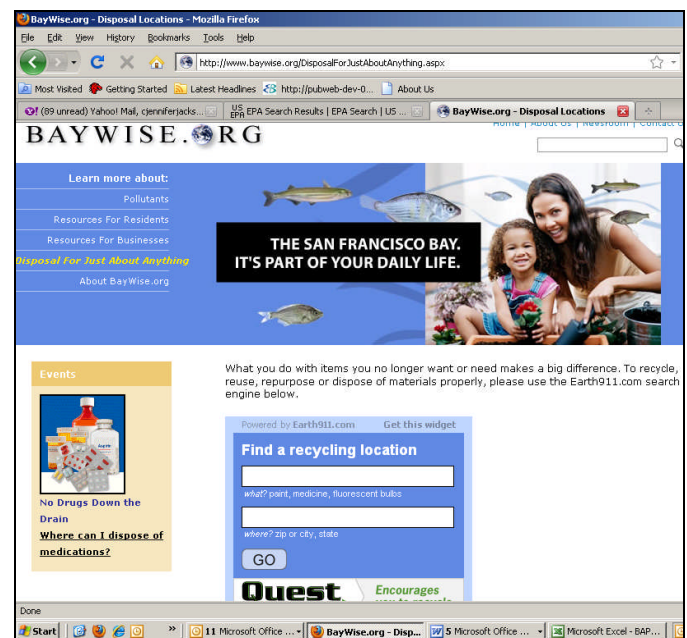
BAPPG Leadership

In 2009/2010, Jen Jackson (EBMUD) served as the Chair of the BAPPG, Sharon Newton (City of San Jose) served as the Vice Chair, Amanda Roa (Delta Diablo Sanitary District (DDSD)) served as Recorder and Kelly Davidson (Mt. View Sanitary District) served as Treasurer. The San Francisco Regional Water Quality Control Board (RWQCB) supports the BAPPG through staff liaison, Heather Ottaway, Pollution Prevention Program Manager, who attends all BAPPG meetings and provides Regional Board perspectives and insights on regulatory processes. The RWQCB also provides a convenient and central meeting space for BAPPG's Main Committee meetings.

BAPPG Accomplishments

Throughout the 2009/2010 fiscal year, BAPPG provided its members with numerous professional development and information-sharing opportunities. During regular bimonthly meetings, visiting experts and BAPPG members delivered presentations on the following topics: Urban Pesticide Pollution Prevention Program, Telesis Institute's Pharmaceuticals in Hospice Project, Save The Bay's Clean Cities Campaign, an Overview of the Bay Area's Municipal Regional Stormwater Permit and the Potential Impacts to Wastewater, Social Marketing, Green Purchasing, DDSD's FOG Monster Campaign and Cyanide Source Control and Action Plans.

In addition, BAPPG members continued to update and improve our website, www.BayWise.org, a regional resource on pollution prevention, funded by BACWA and BASMAA. We added a convenient search engine for residents, "Disposal for Just About Anything" and added a new section, "Resources for Businesses" that provides information for plumbers and dental professionals.




Meanwhile, BAPPG members advanced ongoing projects and initiated exciting new ones that support pollution prevention regionally. The results of these projects are described on the following pages.

2009/2010 Training Workshops for Staff Development

Dental Amalgam Program Training Workshop

Project Manager: Karin North (City of Palo Alto)
(Budget \$2,500)

As a result of the Mercury TMDL and Watershed Permit, Bay Area POTWs are required to implement a dental amalgam program for dentists in their service area. To support BAPPG agencies in complying with this requirement, the BAPPG partnered with the California Water Environment Association's (CWEA) Santa Clara Valley Section to offer a one-day training workshop on Dental Amalgam Programs on January 13, 2010. The workshop included presentations from experienced agency staff on mercury reporting requirements, outreach, data management, compliance/enforcement and dental office inspections. Six CWEA contact hours were offered to interested attendees. The training was very successful, drawing 55 agency staff.




Dental Amalgam Program Training Workshop

Bay Area Pollution Prevention Group
CWEA Santa Clara Valley Section & San Francisco Bay Section

January 13, 2010
9:00 AM to 3:00 PM—6 CWEA Contact Hours
1515 Clay Street, Oakland CA
Registration—8:30 AM to 9:00 AM
Cost—\$15.00/person (Lunch & Materials Provided)
RSVP by January 4, 2010
Cassie Prudhel—650-829-3840 or
cassie.prudhel@sfc.net

Receipts Available
Checks or cash acceptable



Make checks payable to:
CWEA—SCVS

Draft Agenda

Welcome and Introduction	Heather Ottaway, Water Board
Options for Program Implementation – Mandatory vs.	Stephanie Hughes, PE
Effectively Reaching the Dental Community	Tim Potter, CCCSD
Break	
Ensuring Compliance	Karin North, City of Palo Alto
Panel Discussion on Implementation Challenges	Morning Speakers plus
Finding the Dentists in your Service Area	Roberta Dunlap, San Jose
Data Management	Michael Dunning, Union Sanitary District
Lunch and Networking	
Dental Office Inspection Training	Tom Baron, PE and Michael Dunning, Union Sanitary District

Grease Interceptor Training

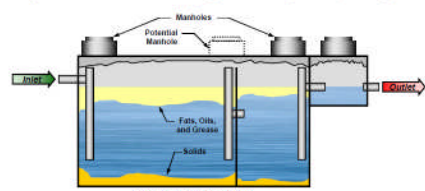
Project Managers: Sarah Scheidt (City of Sunnyvale) and Karen Hurst (SFPUC)
(Budget \$6,500)

The BAPPG again partnered with the CWEA Santa Clara Valley Section to conduct a training workshop on grease removal devices for program and inspection staff on March 30, 2010. This very successful all-day

training, led by consultant John Shaffer of EEC, attracted more than 70 participants. The training focused on grease removal devices, maintenance, sizing and inspections. Three factsheets were developed in conjunction with the training to be provided to inspection staff. The factsheets cover interceptors, alternative grease removal devices (AGRDs) and traps. Our consultant instructor noted that active participation from the audience was the best he had experienced from any previous FOG training. The factsheets and presentation are available for any agency to use in our document archive at www.bappg.org.

Gravity Grease Interceptor (GGI) Fact Sheet

Gravity grease interceptors (GGIs) treat kitchen wastewater from food service establishments (FSEs) using gravity separation. They accumulate fats, oil and grease (FOG) and solids over time allowing the treated wastewater to discharge to the sanitary sewer (see the figure below).





Gravity Grease Interceptor
Outdoor, In-ground
500 - 1,500 Gallons (Typical)


Design and Sizing
GGIs are made of precast concrete, steel, fiberglass or PVC and are sized according to the Uniform Plumbing Code (UPC), Chapter 10, Table 10-3 of the 2006 and 2009 UPC sizes GGIs based on the number of drainage fixture units (DFUs) connected to the interceptor. Typically, GGIs are 500 - 1,500 gallons in volume, depending upon the number of kitchen drains connected.

Certification and Approval
The International Association of Plumbing and Mechanical Officials (IAPMO) provides certifications for a wide variety of GGI products and sizes. Agencies often require that GGIs be certified by IAPMO before they can be approved for use in their service area.

Proper Maintenance and The 25% Rule
Many California sewer agencies require that GGIs be cleaned (pumped) out completely at once every 90 days to prevent the over-accumulation of floating FOG and settled solids. A complete pump-out means that all of the contents of the interceptor must be pumped out and no liquids can be returned to the interceptor unless specific permission has been granted in writing by the sewer agency for this practice. Some GGIs may need to be pumped out more frequently than once every 90 days if the floating FOG and settled solids accumulation exceeds 25% of the overall capacity of the interceptor prior to the 90 day period (i.e. the 25% Rule).

Inspections
Agency inspections should focus on making sure that the GGI is working properly and that the internal plumbing and baffle walls are intact. If an inspector determines that the floating FOG and settled solids accumulation is excessive in the GGI, they will typically notify the FSE that the GGI must be pumped more often. FSEs are often required to save pump-out receipts or maintain logs to show the inspector that the proper maintenance is being conducted.



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A COMMITTEE OF BAY AREA CLEAN WATER AGENCIES

Cyanide Factsheet & Training

Project Leads: Sarah Scheidt (City of Sunnyvale), Mike Dunning (Union Sanitary District) & Norm Domingo (South Bayside System Authority)
(No Cost Project)

BAPPG project champions pooled existing cyanide information from various agencies to create a factsheet and give a 1-hour presentation at our regular June 2010 BAPPG Meeting. The presentation covered sources and potential source control measures for cyanide, treatment methods, discharge requirements, Cyanide Action Plans and emergency response plans. The factsheet and presentation are available at www.bappg.org.

2009/2010 Training Presentations for Trades Workers

Dental Hygienist Mercury Training

Project Manager: Melody LaBella (CCCSD)
(Budget \$8,800)

In most dental offices, mercury best management practices (BMPs) and maintenance of amalgam separators are primarily conducted by the dental assistants and hygienists. In 2009/2010, BAPPG initiated an outreach project targeting dental assistant and hygienist schools, to remind them to practice appropriate BMPs to keep mercury out of the wastewater stream.

BAPPG's consultant, Stephanie Hughes, P.E., provided 14 presentations at schools around the Bay Area. Presentations focused primarily on mercury, but also touched on other potential pollutants from the dental industry, including silver fixer, antibacterial hand soaps and endocrine disruptors. Many schools have already approached us for presentations again next fiscal year.

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Bay Area Clean Water Agencies
A Joint Powers Public Agency
Leading the Way to Protect our Bay

Outline

- Where I'm from & what we do
- Mercury amalgam
 - Health impacts
 - Managing mercury amalgam in dental offices
- Silver fixer
 - Ecosystem impact
 - Managing in dental offices
- Other emerging issues
 - Antibacterial soaps
 - Endocrine disruptors (includes many pharmaceuticals)

Copper P2 Training to Plumbers Unions

Project Managers: Mike Auer (Union Sanitary District) and Meg Gale (SFPUC)
(Budget \$6,100)

This on-going BAPPG project targets the Apprenticeship Program at the Pipe Trades Council, which has incorporated information on BMPs for copper plumbing into their permanent curriculum that focuses on environmental issues relating to the Pipe Trades. The resulting presentation provides information on preventing copper pollution from corrosion related to plumbing design and installation and includes factsheets that address design and installation BMPs to prevent copper corrosion.

Stephanie Hughes, P.E. was hired to provide a technical update to the presentation and to conduct outreach to apprenticeship programs. Due to a lack of first-year apprenticeship programs this year (most students in the second and third year of these programs have already heard our presentation), only one presentation was provided to the apprenticeship program at Union 159 in Martinez. Ms. Hughes re-tooled and initiated outreach to Bay Area building inspectors, the state building inspector association and recently to a Bay Area community college green building program.

Good Plumbing Practices Protect San Francisco Bay

A Fact Sheet for Installers / Plumbers

Copper Affects the Bay
Copper enters San Francisco Bay through storm drains and from wastewater discharged from wastewater treatment plants. Copper is acutely toxic to plankton and affects the reproduction and growth of shellfish.

Reducing Pipe Corrosion Reduces Copper to the Bay
Your skilled installation techniques can greatly reduce pipe corrosion and help protect the Bay. Here are some ways you can make a difference:

- BEST MANAGEMENT PRACTICES**
Follow the installation techniques specified by the ASTM B828 and the Copper Development Association in its Application Data Sheet for "soldering and brazing copper tube and fittings."
- SYSTEM DESIGN**
Design each plumbing system to:
 1. Minimize velocity
 2. Minimize hot water temperature
 3. Avoid stagnant sections
 4. Minimize direction and size changes
- CAREFUL REAMING**
Eliminate small burrs created from pipe cutting. This reduces turbulence and significantly decreases corrosion.
- PROTECTED STORAGE**
Protect stored pipe from weather and damage so that installed pipe is as clean as possible.
- THOROUGH CLEANING**
Remove all oxides, debris, and surface soil from tube ends.
- IMMEDIATE AND REGULAR FLUSHING**
Newly installed systems should be flushed soon after completion to remove excess flux and debris. For inactive systems, repeat flushing periodically.
- MINIMIZE FLUX USE**
Avoid excess use of flux to protect both your health and the Bay. Excess flux residue can increase pipe corrosion which leads to copper discharges to the Bay. Warning: Flux is harmful if carried to the eyes, mouth, or open cuts. Some fluxes also absorb through the skin. Wear protective equipment.
- Less Corrosive Fluxes**
The ASTM B813 flux standard limits flux corrosivity and requires that the flux be water flushable. When these are voluntary standards, the Copper Development Association encourages architects, engineers, contractors and building officials to specify and require the use of B813 fluxes.

Typical Breakdown of Bay Copper Sources

* Based on calculations for South San Francisco Bay, source of the Dumbarton Bridge.

Photo credits: 1) Copper Development Assoc., Application Data Sheet Copper Flux, Bronze Soldering and Brazing Copper Tube and Fittings, ASTM B828; 2) James, Richard; 3) Miller Paper-Airline, Shipping of Use and Performance of Copper Tube and Fittings Water Services; 4) National Sanitation Foundation, Sanitary Connections, 1989.

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2009/2010 FOG Outreach & Pesticide Projects

Holiday FOG Turkey Fryer Outreach

Project Manager: Cassie Prudhel (City of South San Francisco)
(Budget \$2,000)

Deep frying has become a popular way for turkey preparation during the holidays, so the BAPPG partnered with the San Francisco Bay Keeper to target Bay Area stores that sell turkey fryers, in advance of the Thanksgiving holiday. Turkey fryer stickers and posters with information on proper FOG disposal were delivered to 42 Home Depot stores and approximately 35 OSH stores throughout the Bay Area in late October 2009.

Media relations support provided by O'Rorke, Inc. and funded under BACWA's media relations budget, expanded this campaign to English-speaking media outlets later in February 2010, garnering an additional 14 radio stations airing public service announcements (PSAs) and placing PSAs on their websites, 2 radio interviews on family stations and 2 newsprint stories.

Spanish Radio FOG Outreach

Project Manager: Sharon Newton (City of San Jose)
(Budget \$10,000)

The BAPPG conducted its 12th year of radio outreach to the Spanish-speaking population in the Bay Area during the holiday timeframe between Thanksgiving and Christmas in 2009. The focus of our Spanish radio outreach is the proper disposal of kitchen fats, oils and grease in the trash, rather than down the drain.

Sixty-six radio ads, featuring a dialogue between a husband and wife cleaning up after dinner, were aired on KSOL (98.9 FM), KSQL (99.1), KRBG (100.3 FM) and KVVF (100.7 and 105.7 FM), delivering nine county San Francisco metro coverage – from Napa and Sonoma in the north to Santa Clara in the south to Contra Costa and Alameda in the east. KSOL ranks #1 for Hispanic listeners and is a top 5 radio station in the Bay Area (English radio included). An additional 53 PSAs were aired in January and February 2010.

Asian Language FOG Media Outreach

Project Managers: Cynthia Royer (City of Daly City) & Jen Jackson (EBMUD)
(Budget \$5,000)



BAPPG contracted with media relations consultant O'Rorke, Inc. to purchase radio ad space on Asian language radio stations. Thirty-one paid radio spots were aired on Asian radio station KVTO in Cantonese and Mandarin around Lunar New Year, Feb 2 – 16, 2010. The focus of the ads was the proper disposal of fats, oil and grease. MP3 audio files of the radio ads are available in our document archive at www.bappg.org.

Pesticide Regulatory Assistance

Project Manager: Jen Jackson (EBMUD)
(Budget \$5,000)

The BAPPG hired Kelly Moran of TDC Environmental to provide support and assistance to POTW staff involved in state and federal regulatory issues related to the registration and evaluation of pesticide products and uses. Primarily, Ms. Moran assisted staff with tracking changes and providing input on the Department of Pesticide Regulation's re-evaluation of pyrethroid pesticides. In addition, she coordinated the POTW community's input on the EPA's harmonization efforts between their Office of Water and Office of Pesticides Program and assisted in advancing the POTW community's position on inert ingredient disclosure and the registration of nanosilver consumer products.

AVOID PAIN IN THE DRAIN

Recycle turkey fryer oil and cooking grease.
Find a location near you at www.baywise.org

NO COOKING OIL OR GREASE DOWN THE DRAIN
Cooking fats, oil and grease block drains and sewers. Recycle.
Prevent raw sewage backups into your home, your streets and the bay.

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SAN FRANCISCO
BAYKEEPER
www.baykeeper.org

2009/2010 Regional Campaigns

Regional Integrated Pest Management Campaign: *Our Water – Our World*

Project Manager: Jennifer Kaiser (Vallejo Sanitation & Flood Control District)
(Budget \$10,000)

The Regional Integrated Pest Management (IPM) Partnership, our joint project with BASMAA, completed its 12th year of the regional *Our Water, Our World* (OWOW) promotion of less-toxic pest control.

Accomplishments for 2009/2010 include:

- Coordinated program implementation with major chains Home Depot, Orchard Supply Hardware (OSH) and Ace Hardware National. OSH reported “natural insecticides” sales up 8.5% from last year. Home Depot increased their less-toxic offerings 17.2%.
- Coordinated master print run of the following: factsheets, shelf talkers, literature rack signage, banner, beneficial bug brochure, business card, magnet, *Pest or Pal* activity guide for kids, pocket guide and *Pests Bugging You?* booklet.
- Updated less-toxic Product Lists Master by brand name version; by pest version and OSH and Home Depot-specific lists/labels.
- Maintained *Our Water, Our World* website; provided Ask-the-Expert service.
- Provided and staffed exhibitor booths and trade and dealer shows; made presentations to dealer shows and Urban Pesticide Committee.
- Provided on-call assistance (e.g., display set-up, training, IPM materials review) to specific stores (e.g., OSH, Walgreens).
- Print advertising and article in Green Zebra Guide
- Print advertising in Bay Nature magazine; Bringing Back the Natives Garden Tour’s garden guide; OSH weekly fliers, including 10 year anniversary ad
- Provided assistance to supplier Excel Garden Products to identify their less-toxic products and to include mention of *Our Water, Our World* in their catalog, which is now available online so all their customers and representatives can continue to access current and new less-toxic products.
- Mentioned in articles by others: Sunset magazine; San Francisco Chronicle; and Edible East Bay.



Got Bugs? Get Answers!
Choose less toxic products for a healthy home and garden
visit www.ourwaterourworld.org

Funded under agreement with the State Water Resources Control Board pursuant to Costa-Machado Water Act of 2000 (Proposition 13)

Look for this symbol before you buy

Regional No Drugs Down the Drain Campaign

Project Manager: Sharon Newton (City of San Jose)
(Budget \$8,162)

The BAPPG coordinated a regional No Drugs Down the Drain campaign to coincide with National Pollution Prevention Week – September 21-27, 2010. Graphics from Palo Alto’s Clean Bay campaign were regionalized for the effort. Media relations consultant O’Rorke, Inc. assisted with a press conference/media event held at the State Building in Oakland where a new pharmaceutical collection bin was established as a partnership among the San Francisco Regional Water Quality Control Board and EBMUD. State Senator Loni Hancock’s office, along with Assembly Members Sandre Swanson and Nancy Skinner, Water Board Executive Officer Bruce Wolfe and EBMUD Board Member Andy Katz were speakers at the event.

As a result of the press conference and other media relations efforts, the campaign garnered five print stories, three radio interviews, one TV news piece and at least 9 radio stations aired PSAs. The Baywise.org website had 2,035 visits in September, as compared to 440 in August and 376 in July. Almost half the visits were direct links as opposed to search engine driven, which means that the public saw our ads and went directly to our website.

The campaign was very successful in terms of agency participation and the amount of pharmaceuticals collected. Twenty agencies reported their participation in the campaign, providing at least 27 one-day or permanent collection sites around the Bay Area and collecting 3,246 pounds of unwanted medications.



Unused medicine that is flushed or put down the drain can end up in our waterways and pollute the environment. You can make a difference by properly disposing of your unused medications.

Old Pills Piling Up?
No Drugs Down the Drain Please!

Prevent water pollution and protect the San Francisco Bay by bringing your unused or expired medicine to one of our upcoming events. See reverse for locations, or visit our website below.

www.baywise.org

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2009/2010 Pharmaceutical & P2 Week Projects

Hospice Pharmaceutical Disposal Pilot

Project Manager: Karin North (City of Palo Alto)
(Budget \$5,000)

BAPPG partnered with Teleosis Institute to conduct a pilot pharmaceutical mail-back program with Sutter VNA, a hospice organization in Contra Costa County. Sharps Compliance donated 500 postage-paid mailers for the effort at no cost. Teleosis worked directly with Sutter VNA to provide hospice nurses with the mailers and information on best disposal practices. The nurses distributed 400 of the mailers to patients' families with instructions on how to use them. Of these, 160 were mailed in, or about 40%. A total of 119 pounds of pharmaceuticals was diverted, at a cost of \$14.95/pound for mailing and disposal. Had more of the mailers been returned, economies of scale would have been realized, reducing the per pound cost to approximately \$5.

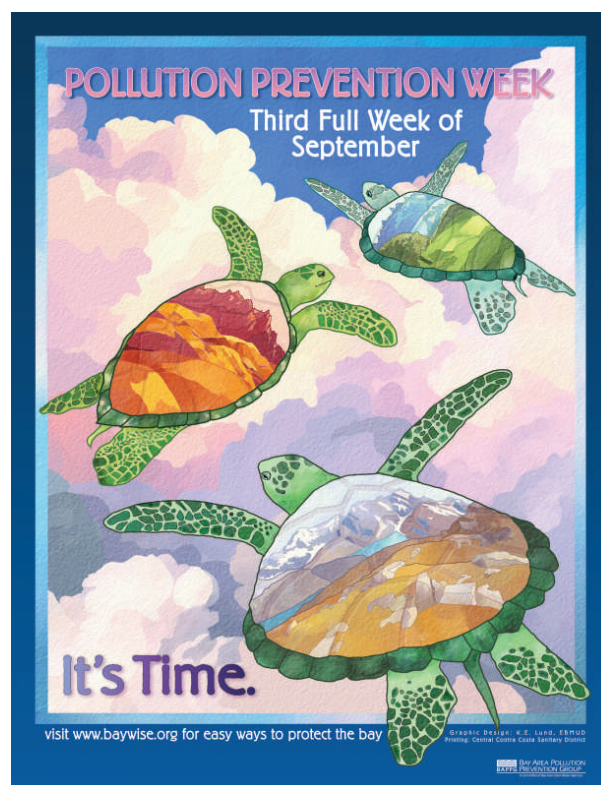
Teleosis also conducted a meeting with Sutter VNA nurses at the end of the pilot to obtain feedback. Some nurses reported that at times it was difficult to adopt a new practice when dealing with end-of-life crises. This points to the need to continue to educate nurses in the importance of the new practice as well as find ways to make the program more convenient for them. One idea is to provide every family with a mailer in their welcome packet. The mailers could be on a pay-as-you-go basis, so that mailers that are not used do not cost the organization anything.

Teleosis is planning presentations that can be used in continuing education and training for hospice and long-term care nurses. BAPPG is planning to support some of these efforts in the coming year.

P2 Week Posters

Project Manager: Melody LaBella (CCCSD)
(Budget \$1,465)

In September 2009, EBMUD provided graphics for the production of 1,000 posters for distribution during National P2 Week (the third full week of September each year). Posters were distributed through BAPPG member agencies.



For questions or more information about the BAPPG, contact current BAPPG leadership:

Chair Sharon Newton (City of San Jose)
Sharon.Newton@sanjoseca.gov

Vice Chair Sarah Scheidt (City of Sunnyvale)
sscheidt@ci.sunnyvale.ca.gov

Get Connected!

Listserv: Member agency staff may request access to BAPPG's yahoo group list serve by clicking on "Join This Group!" at <http://groups.yahoo.com/group/BAPPG>

Meetings: Held in Oakland at the State Building, our meetings are open to member agency staff. Our calendar is available at www.bacwa.org

Membership: BAPPG welcomes agencies outside the nine Bay Area Counties to become members. We all benefit from sharing information, as do the waterways we work to protect! Contact this year's leaders for more information.

Many of BAPPG's presentations, documents and graphics are available in our document archive at www.bappg.org.