

Wastewater Treatment Agencies of Marin County Public Education Program



**Central Marin Sanitation Agency - Novato Sanitary District - Las Gallinas Valley Sanitary
District Sewerage Agency of Southern Marin - Sausalito Marin City Sanitary District -
Sanitary District No. 5 of Marin County**

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I. Introduction

This report summarizes the Public Education Activities and measures for Pollution Prevention taken as part of the Wastewater Treatment Agencies of Marin County Public Education Program (Public Education Program). The Sausalito-Marín City Sanitary District (SMCSD), Las Gallinas Valley Sanitary District (LGVSD), Central Marin Sanitation Agency (CMSA), Novato Sanitary District (NSD), Sewerage Agency of Southern Marin (SASM), and Sanitary District #5 of Marin County (SD#5) are members of the Public Education Program. This annual report covers the reporting period of January 1, 2023, through December 31, 2023.

II. Historical Summary

Provided below is an historical summary over the last 5 years of the Public Education Program.

A. Copper

The Public Education Program has distributed brochures on how to control copper applications and discharges from pools, spas, fountains, plumbing practices, and demolition. These application brochures were mailed to plumbers, and demolition brochures mailed to construction companies in Marin County. These brochures were also made available in the typical outreach booth and various wastewater treatment facility reception buildings.

B. Mercury

Annual dental office inspections are performed in the service areas of CMSA, LGVSD, and NSD. These service area inspection programs have prevented Mercury amalgam waste from being released to the sanitary sewers. Additionally, the Public Education Program supports a Mercury Take Back program in which mercury thermometers are exchanged with digital thermometers during outreach events and at the wastewater treatment facilities.

A. Fats, Oil and Grease (FOG)

FOG inspections are performed in the service areas of CMSA, LGVSD, and NSD. These service area inspection programs have prevented FOG from being released to the sanitary sewers. Additionally, the Public Education Program actively supports a FOG prevention program by handing grease scrapers to be used in homes to scrape the grease off dishes prior to washing were also given away and are imprinted with an educational message.

B. Public Education

The Public Education Program has conducted several public outreach activities, including staffing an outreach booth at several local community events, coordinating in-school outreach shows, and hosting tours at treatment facilities.

III. Pollutants of Concern

A pollutant of concern is any toxic or undesirable substance that passes through a wastewater treatment plant or otherwise imposes undesirable operational costs to the Wastewater Treatment Agencies of Marin County.

In 2012 the Waste Discharge Requirements for Mercury and PCBs from Municipal and Industrial Wastewater Dischargers to San Francisco Bay (Regional Water Board Order R2-2022-0038) was adopted which contained Mercury discharge limits that apply to Publicly Owned Treatment Works (POTWs) in Marin County. Therefore, Mercury is a pollutant of concern for the Public Education Program.

Due to influent copper concentrations and NPDES permit limits for copper, copper is a current pollutant of concern for wastewater treatment agencies in Marin County. The Public Education Program has participated in activities geared toward reducing the discharge of Copper to the sanitary sewer from residents, plumbers, and pool and spa maintenance companies.

Discharge of fats, oils, and grease (FOG) to the sanitary sewer, alone or in conjunction with other factors, is a significant cause of sanitary sewer overflows (SSOs). The Public Education Program directed resources toward providing information to the public and business owners about reducing FOG discharge to the sanitary sewers.

IV. Sources of Pollutants of Concern

Provided below is a list of the potential sources associated with the pollutants of concern identified by the Public Education program.

A. Copper

Listed below are identified or potential sources of Copper in Marin County. The list is based on available sample data, available references such as the Palo Alto Regional Water Quality Control Plant’s (RWQCP) “Copper Source Identification,” and best professional judgment.

- Water supply and plumbing corrosion
- Cooling towers
- Copper sulfate root killers
- Auto repair and related activities

B. Mercury

Listed below are identified or potential sources of Mercury in Marin County. The list is based on available sample data, available references such as the Palo Alto RWQCP’s “Mercury Source Identification,” and best professional judgment.

- Dental offices
- Residential Mercury disposal
- Photo processes
- Medical facilities
- Auto repair and related activities
- Human feces

C. Fats, Oils, and Grease (FOG)

Fats, oils, and grease (FOG) is produced by residential cooking operations, commercial food service establishments (FSEs), and industrial food production facilities. Although some collection system FOG-related issues have been reported in residential areas, most FOG issues are caused by FSEs.

V. Recent, Continuing, and Planned Tasks to Reduce Pollutants of Concern

A. Copper

In 2023, the Public Education Program handed out the brochure “Good Plumbing Practices Protect San Francisco Bay” and “Maintenance Tips for Pools, Spas, and Fountains” to homeowners and pool and spa maintenance companies.

B. Mercury

- i. Dental Amalgam Inspection Program:** During 2023, LGVSD, CMSA and NSD service areas continued their annual dental office inspection programs to minimize the discharge of Mercury to the sanitary sewer from dental offices in Marin County. In 2023 amalgam separators removed approximately 34 lb. of Mercury within the service areas.
- ii. Thermometer Take-Back Program:** All partnered wastewater treatment agencies provided the service of exchanging Mercury-containing thermometers for digital thermometers at their offices for the public.
- iii. Mercury Recycling Program:** The Marin County Household Hazardous Waste Program is now accepting household hazardous wastes Tuesday thru Saturday instead of a one-time collection day event. Agencies continued to collect Mercury-containing devices, fluorescent tubes, ballasts, and batteries for proper recycling and disposal.
- iv. Mercury Outreach Materials:** Mercury disposal brochures produced by the EPA that discuss the toxicity of mercury and how to properly handle their disposal are handed out at all public education and outreach events.

C. Fats, Oils, and Grease (FOG)

The Public Education Program continues the FOG Outreach Program by handing out information at several public events describing ways to reduce discharge of FOG to the sanitary sewers. Grease scrapers to be used in homes to scrape the grease off dishes prior to washing were also given away and are imprinted with an educational message. On the outreach quiz there is a question about how to properly clean pots, pans, and dishes before washing that was answered by members of the public. Many of the FOG Control Programs

of Marin County POTWs regulate FSEs. Multi-lingual posters were handed out and displayed at FSEs about proper handling, recycling, and disposal of FOG including grease trap maintenance. Laminated posters are available at the booths for the public to view. The program also hosts various educational sessions at Senior living facilities where FOG is one of the topics covered.

In 2023, seven outreach events were conducted by public education staff and the distribution of door hangers continued to reach a broader diversity of the community. Public outreach materials and door hangers consisted of assorted brochures:

- “Fat-Free Sewers”,
- “Wipes Clog Pipes”,

VI. Public Education Program Outreach

In 2007, six Marin County POTWs--Central Marin Sanitation Agency (CMSA), Las Gallinas Valley Sanitary District (LGVSD), Novato Sanitary District (NSD), Sewerage Agency of Southern Marin (SASM), Sanitary District No. 5 of Marin County (SD5), and Sausalito-Marín City Sanitary District (SMCSD), implemented the Public Education Program. The educational activities of each Public Education Program member agency are enhanced by combining resources and sharing a unified message.

All the public outreach and school activities listed below and in Table 1 below are coordinated and administered through the Public Education Program. The public outreach activities listed below are designed to educate students and the public on the following issues:

- The difference between storm drains and sanitary sewers, and their functions.
- Nothing but rainwater should go in storm drains.
- The types of wastes appropriate for the sanitary sewers.
- “Flush Green” - the toilet is not a trash can.
- Ways to properly dispose of wastes that cannot go in the storm drain or sanitary sewers (*e.g.*, household hazardous waste programs).
- Beneficial reuse of treated wastewater and biosolids.
- Hazards and proper disposal of waste Mercury.
- Issues relating to preventing FOG-related SSOs.
- Private sewer laterals, responsibility for their maintenance, and their potential to cause infiltration into the collection system which can lead to SSOs.
- Emerging topics are added to the Public Education Program when appropriate.

Table 1: Public Education Program Budget

Budget Line-Item Description	FY22-23 Budget ^a	FY23-24 Budget ^a
Event Enrollment (Booth costs)	\$ 4,000	\$8,000
Juggler Show (20 shows per year annual cost)	\$ 10,000	\$11,000
Fast Forward/Kidspeak Publication	\$ 4,000	\$5,000
Logo Development (every other year)	\$ 2,000	
SAV-R-BAY website maintenance	\$ 1,500	\$1,000
Booth Set Up Supplies (yearly events)	\$ 1,000	\$1,500
Booth Technology equipment	\$ 2,000	\$2,500
Brochures (printing/updates/ development)	\$ 3,000	\$4,000
Public Education Video Outreach (Comcast)	\$ 18,000	\$20,000
Promotional Items	\$ 12,000	\$20,000
Marin Science & Environmental Leadership Program (MSEL)	\$ 2,500	\$2,500
Total	\$ 60,000	\$75,500

a. FY22-23, fiscal period from July 1, 2022, to June 30, 2023. FY23-24, fiscal period from July 1, 2023, to June 30, 2024.

A. School Outreach

The Public Education Program works with professional entertainers to produce the scripts for entertaining and educational school outreach shows. The shows address water and pollution issues in a simple, humorous manner suitable for kindergarten to sixth grade. The entertainers are then contracted to present the shows at schools in Marin County. For the 2021 school year, the Public Education Program through the efforts of the “Go With The Flow” producer, converted his in-person show to a virtual show. In 2022, there were 9 virtual shows, and 12 in-person shows. In 2023 all juggler presentations were in-person assemblies. In-person shows were presented to 19 Marin County schools reaching a total of 3,893 students.

B. Outreach Booths

The Public Education Program staffs outreach booths at several public events each year. Visitors to the booths have an opportunity to take a quiz concerning the topics listed above. Adults who answer all questions correctly win their choice of a t-shirt, stainless water bottle, stuffed animal, canvas tote, or nylon backpack bag. Children are given a simpler quiz addressing similar issues. If they answer all the questions correctly, they may spin a prize wheel. The quizzes are intended both to educate the people who take them and to provide information on the public’s level of awareness on key topics. In addition to administering quizzes, staff members engage the public and answer questions regarding pollution prevention, wastewater treatment, recycled water, and other environmental issues. At outreach events, staff has the opportunity to talk with local teachers and inform them of possible outreach activities including in class presentations and facility tours offered by the Public Education Program member agencies.

The following list includes a description of the events that were attended by the Public Education Program members during 2023.

The Mill Valley Spring Eggstravaganza

On March 25, 2023, the Public Education Program participated in a community outreach event to educate the public on what not to flush. During this event, 350 individuals were engaged by public education staff on what not to flush down the toilet.



Novato Farmer's Markets

The City of Novato sponsors Farmer's Markets with vendors and entertainment in downtown areas. The Public Education Program staffs an outreach booth at the market on June 20, 2023. During this event 98 individuals were presented key public education topics.

The Marin Rotary Day of Service

The Rotary Day of Service – Protecting the Environment was held at the Marin County Fairgrounds on May 13, 2023. The event featured local businesses and community members with expertise in sustainability. During this event, staff interacted with members of the public to discuss sustainability in the community.



Ribbon Cutting Ceremony for Coloma Pump Station Project

The Sausalito Marin City Sanitary District (SMCSD) held a Ribbon Cutting Ceremony for the completion of the Coloma Pump Station Project on April 18, 2023. An outreach table focused on key pollution prevention education messages. Event

Mill Valley Earth Day



Mill Valley Earth Day on April 23, 2023, had speakers presenting a variety of environmental topics, research projects, studies, and success stories related to environmental concerns and potential impacts. It also had booths with local resources focusing on sustainability and conservation. During this event, 250 individuals were engaged by public education staff on the key aforementioned public education messages.

The Marin County Fair



From June 30th to July 4th, 2023, the Public Education Program staffed a community outreach booth to educate the public on key pollution prevention education messages. During this event, 1,229 individuals were engaged by public education staff on conservation and pollution prevention.



Get Ready to Go 94920



The Get Ready to Go 94920 event on October 14, 2023, was sponsored by the City of Tiburon. This event is where the public can view all the different First Responder Agencies and the equipment used in emergencies and disasters to 50 community members. Sanitary District No. 5 of Marin County showcased their equipment used in sanitary sewer spills. It was a chance to show the public what not to flush down the toilet and drains. During this event individuals were engaged by public education staff on key public education messages.

C. TV-ad (and YouTube) campaign

The Public Education Program partnered with Ross Valley Sanitary District (RVSD) to have TV ads covering specific topics (wipes, FOG, drugs) with all the district logos at the end of the ad to raise our collective visibility and show we are a unified, coordinated front. The ads ran on Effectv (Comcast) from March through June and again in November through December. Ads in the campaign included:

- “Do Not Flush Wipes”.
- “Proper FOG Disposal”.
- “Is Your Sump Pump Connected Properly?”

In 2023, during the first ad campaign, the ads were delivered **72,502** times within premium content and the target audience watched **65,418 (90%)** of the ads in their entirety. During the second ad campaign the ads were delivered **132,783** times within premium content and the target audience watched **107,485 (81%)** of the ads in their entirety.

D. Website

The Public Education Program launched the newly designed website www.savrbay.com on October 21, 2021. The website has information about what resources are currently

available and activities and programs that are offered to schools and members of the community as well as the location and contact information for the six wastewater treatment plants in Marin County. In 2022 and 2023 quizzes at outreach events were taken online by using phones to scan the quiz QR code. Since 2022, 68 children’s quizzes and 104 adult quizzes were completed online. Since October 21, 2021, the website has been visited 17,706 times.

E. Plant Tours

Agencies conduct tours of the POTWs upon request from schools, community groups, and other members of the public.

F. Brochures

The Public Education Program has several brochures covering a wide range of topics including materials that should not be flushed, lateral maintenance, and copper. The brochures are regularly reviewed, and informational content is updated when necessary. This year several hundred brochures were distributed through door hanger outreach.

G. Classroom Presentations

Upon request from teachers, the Public Education Program provides presentations at school classrooms. Each presentation is tailored to the grade level of the class and generally covers the topics listed above. If requested, presentations can be tailored to focus on a specific area of study that is relevant to the teacher’s lesson plan. Each presentation has hands-on activities including looking at wastewater biology through a microscope, a watershed diorama, and a pollution-prevention-related video game.

H. FastForward Publication

The Public Education Program is a “Major Sponsor” for the FastForward school outreach publication. This magazine written by students covering a large array of subjects including media, arts, sciences, and current events. It gets distributed to over 50 elementary and high schools in Marin (including private schools) to a readership of over 25,000 students by print, and online it reaches an even wider audience, including teachers, administrators, and parents.

VII. Regional Efforts

A. STRAW

The Students and Teachers Restoring a Watershed (STRAW) program coordinates and sustains a network of teachers, students, restoration specialists, and community members to plan and implement professional watershed restoration. STRAW provides teachers with resources, materials, and technical support to integrate watershed content into their classrooms. Environmental science education is delivered in coordination with

other school science curricula throughout the school year. In 2023, the Public Education Program was not able to meet with STRAW teachers.

B. BAPPG

Public Education Program Members participate in the Bay Area Pollution Prevention Group (BAPPG). This is an excellent forum for local POTW Pollution Prevention staff to network and coordinate regional projects. The 2023 BAPPG Annual Report is available for download on the BAPPG website (bacwa.org) and includes descriptions of projects related to the following pollutants:

- Copper
- Fats, Oils, and Grease (FOG)
- Mercury and Silver
- Pesticides
- Pharmaceuticals
- Triclosan
- Trash and Wipes
- Fipronil / Imidacloprid / Pyrethroids

C. NBWA

Public Education Program agencies are members of the North Bay Watershed Association (NBWA). They participate in the NBWA Water Quality Committee through individual staff participation. The Water Quality Committee is of particular benefit to the Public Education Program.

D. BACWA

Public Education Program agencies are associate and affiliate members of the Bay Area Clean Water Agencies (BACWA). BACWA, the Bay Area Municipal Stormwater Collaborative (BAMSC), and the RWQCB have a Memorandum of Understanding for developing San Francisco Bay Total Maximum Daily Limits and SSOs and provide guidance and funding for receiving water monitoring through the Regional Monitoring Program and the San Francisco Estuary Institute.

VIII. Evaluation of Program and Task Effectiveness Discussion

A. School Outreach

The Juggler Show premiered in 2014 for grades 3-6 and was based on a similar show that was sponsored in 2004. Teacher feedback from the previous show was used when developing the current show. Evaluation forms are distributed to teachers after the presentation to determine the show effectiveness.

- Developmentally appropriate,
- Appropriate length,
- Adequately conveys the role that POTWs play in society to protect our water supply and the environment,

- Demonstrates the difference between storm drains and sanitary sewers,
- Any suggestions for improvement or additional information.

The completed forms are used to judge age appropriateness and other elements of the show. The 2019 production was revised and geared towards kindergarten to second grade level children. In 2020, due to COVID-19, the juggler show was revised to a virtual program. In 2021 due to COVID-19, the juggler show was viewed virtually with only a few in-person performances. In 2022, the juggler show was viewed virtually, and in-person shows returned to some locations. In 2023, all the juggler shows were in-person assemblies.

B. Public Outreach

The 2023 events are described in more detail above (Outreach Booth section). In normal years, quizzes are administered at public outreach booths at several events each year. Assessed solely based on the number of documented contacts with the public, the booths have been a very successful public outreach endeavor. There are many other useful means of contact with the public, in addition to people taking quizzes. It should be noted that whether a successful quiz-taker will exhibit desirable behavior regarding related environmental issues cannot be determined from test score data.

IX. Summary of Programs Accomplishments and Future Plans

Copper Minimization Program	
Goals	Reduce copper discharge to sanitary sewer from plumbing corrosion, pool, spa, and fountain maintenance and copper root control chemicals.
2023 Accomplishments	Brochures were provided to plumbers, pool, spa, fountain owners, and maintenance companies.
2024 Plans	Continue Public Education efforts through the Public Education Program.
Evaluation Criteria	The number of brochures handed out and questions answered by the public.
Mercury Dental Amalgam Program	
Goals	Reduce mercury discharged to the sanitary sewer by implementing dental amalgam programs requiring amalgam separators.
2023 Accomplishments	Marin county dentist offices were monitored to ensure compliance. Approximately 34 lb. of mercury was collected from amalgam separators.
2024 Plans	Conduct detailed annual inspections in LGVSD, CMSA, and NSD service areas and determine program compliance of individual dental offices.

Evaluation Criteria	Track inspections compliance and ensure amalgam separators are maintained properly. Estimated amount of mercury captured is calculated based on amalgam hauled away and separator maintenance.
Mercury Take Back Program	
Goals	Thermometer exchange program to exchange mercury-containing thermometers for non-mercury digital thermometers. Facilitate removal and recycling of mercury-containing products, including fluorescent tubes, ballasts, switches, bulbs, batteries, and laboratory chemicals.
2023 Accomplishments	Exchange mercury-containing thermometers for digital thermometers at POTWs. In 2023, 60 mercury-containing thermometers were exchanged. POTWs in Marin County recycled 28,964 ft. of fluorescent tubes; 233 lb. ballasts (PCB); and 32,916 lb. of batteries.
2024 Plans	Continue thermometer exchange at participating POTWs. Continue to properly recycle and dispose of mercury-containing fluorescent tubes, mercury-containing devices, and batteries. Hand out mercury disposal brochures at events.
Evaluation Criteria	Calculate the number of thermometers exchanged. Participating agencies will report on collection activity materials collected. The total combined amount of material collected is reported.
Fats, Oils & Grease (FOG) Program	
Goals	Educate the public about minimizing residential FOG discharge.
2023 Accomplishments	Conducted several public outreach activities, including staffing an outreach booth at several local community events, coordinating in-school outreach show, and hosting tours at treatment facilities. Continued to distribute brochures with good practices related to pools, spas, fountains, and plumbing practices. Agencies supported TV commercial ads on the proper disposal of FOG.
2024 Plans	Continue the current FOG Outreach Program. Develop a new virtual outreach message and continue supporting RVSD's TV commercial outreach for FOG and preventing SSOs.
Evaluation Criteria	Provided multi-lingual FOG outreach material to Marin County residents at outreach booths. Quiz questions, brochures, FOG scrapers, restaurant inspections are performed routinely by some agencies.
County-wide POTW Public Education Program	
Goals	Unify public outreach efforts for all Marin County POTWs.
2023 Accomplishments	Maintained a combined program with 6 POTWs in Marin County.
2024 Plans	Continue the program and expand when beneficial.
Evaluation Criteria	Public Education Program topics and goals will be evaluated.

Marin County Public Education Website	
Goals	Provide contacts and information on Public Education Program outreach program, Pollution Prevention, and contacts at POTWs.
2023 Accomplishments	Launched newly designed website, October 21, 2021. Updated all agencies' website information.
2024 Plans	Continue to update and keep current the www.savrbay.com website. Update website with the new outreach ad campaign on wipes, FOG, and drug proper disposal.
Evaluation Criteria	Website traffic will be calculated.
"Wetlands Days" Program	
Goals	Assist public agencies and non-profit organizations through the countywide Public Education Program during "Wetlands Days".
2023 Accomplishments	Wetlands Days at the SASM facility were suspended in 2023 during a large capital improvement project.
2024 Plans	Resume Wetlands days in 2024.
Evaluation Criteria	Numbers of students and teachers who attend the event.
School Outreach Program	
Goals	Provide educational entertainment to Marin County kindergarten to third grade students on wastewater, stormwater, and related Pollution Prevention topics that are revised every two years to target different age groups.
2023 Accomplishments	19 'Go with the Flow' Juggler shows were performed in 2023 reaching 3,893 students in kindergarten to third grade. All nineteen shows were in person, where 3,893 students attended.
2024 Plans	Continue newly reworked Juggler show.
Evaluation Criteria	Juggler show presented at local schools for younger children, kindergarten to third grade.
Public Outreach Program (Outreach Booths)	
Goals	Educate the public through various outreach materials and provide one on one discussions on key Public Education messages between the public and agencies.
2023 Accomplishments	<ol style="list-style-type: none"> 1. Spring Eggstravaganza Event – Total of 350 visitors. 2. Rotary Day of Service – 50 adults took quizzes. Total of 100 visitors. 3. Ribbon Cutting Ceremony – Total of 25 visitors. 4. Earth Day - Total of 250 visitors. 5. Marin County Fair – 1,229 visitors. 6. Farmer's Market – 73 quizzes. Total of 98 visitors. 7. Get Ready To Go 94920 – Total of 50 visitors.

2024 Plans	Promote appropriate Public Education Programs tailored to meet community needs.
Evaluation Criteria	The number of events attended, and quizzes given to the public.
Commercials for Wastewater Outreach on TV-ad & YouTube	
Goals	Educate the public on proper disposal of unused pharmaceuticals and facilitate proper disposal. Educate the public not to flush “flushable wipes”. Educate the public on disposing of FOG.
2023 Accomplishments	In 2023, during the first ad campaign, the ads were delivered 72,502 times within premium content and the target audience watched 65,418 (90%) of the ads in their entirety. During the second ad campaign the ads were delivered 132,783 times within premium content and the target audience watched 107,485 (81%) of the ads in their entirety.
2024 Plans	Continue to support funding for TV ads on specific topics (wipes, FOGs, pharmaceuticals disposal). These ads will play for a 3-month term and twice per year.
Evaluation Criteria	Decrease of SSOs caused by FOG or wipes.
Websites	
Goals	Provide outreach on District/Agency and Public Education websites.
2023 Accomplishments	The Public Education Program launched the newly designed website www.savrbay.com on October 21, 2021. Quizzes at outreach events are taken online by using phones to scan the quiz QR code. Since October 21, 2021, the website has been visited 17,706 times.
2024 Plans	Update website with relevant events and upcoming schedule.
Evaluation Criteria	Continue to monitor website traffic.
Plant tours	
Goals	Outreach and education
2023 Accomplishments	In 2023, 530 students and adults toured POTWs countywide.
2024 Plans	Continue providing tours as allowed.
Evaluation Criteria	The number of people who toured Marin County POTWs.
Classroom Presentations	
Goals	Teach students in a classroom setting about how agencies treat wastewater, what can and cannot go down the drains, and why.
2023 Accomplishments	Classroom presentations at Marin schools were not held in 2023.
2024 Plans	Continue to encourage schools to utilize the program and perform additional programs as requested.

Evaluation Criteria	Number of schools and students participating in the program.
Brochure	
Goals	Develop brochures that effectively convey wastewater messages and Pollution Prevention to the public.
2023 Accomplishments	Brochures were handed out in limited quantities as door hanger packets. Additionally, brochures were reviewed, several were retired and noted brochures were marked to be reprinted.
2024 Plans	Develop some of our brochures in Spanish.
Evaluation Criteria	The number of brochures handed out.
FastForward Publication	
Goals	Pollution Prevention Outreach to School-Age Children
2023 Accomplishments	“Major Sponsor” of the student magazine FastForward. These bi-monthly publications are delivered to 50 elementary and high schools in Marin (including private schools) for a readership of over 25,000 students. The magazine is also online and reaches an even wider audience.
2024 Plans	Continue to support and include the current logo.
Evaluation Criteria	Estimate how many students this publication reaches.
STRAW	
Goals	Work with STRAW (Students and Teachers Restoring A Watershed).
2023 Accomplishments	Due to COVID-19, unable to partner with STRAW on wastewater-related Pollution Prevention activities.
2024 Plans	Continue to support STRAW.
Evaluation Criteria	The number of teachers and students receiving information on wastewater-related Pollution Prevention activities.
Bay Area Pollution Prevention Group (BAPPG)	
Goals	Participate in SF Bay area regional Pollution Prevention planning & projects.
2023 Accomplishments	Participated in BAPPG.
2024 Plans	Continue membership and attend meetings.
Evaluation Criteria	See BAPPG Annual Report submitted to Regional Water Quality Control Board (RWQCB).
North Bay Watershed Association	
Goals	Participate in watershed coordination, planning, and projects.
2023 Accomplishments	NBWA event will be held in 2023.
2024 Plans	Continue to participate in NBWA Water Quality Committee.

Evaluation Criteria	Engagement with NBWA.
Bay Area Clean Water Agencies (BACWA)	
Goals	Facilitate SF Bay TMDL, SSO, regional studies development, and other regional planning/projects.
2023 Accomplishments	Associate member of BACWA (CMSA). Affiliate member of BACWA (LGVSD, NSD, SASM, SD#5, and SMCSD).
2024 Plans	Continue membership.
Evaluation Criteria	Facilitate SF Bay TMDL, SSO, regional studies development, and other regional planning/projects.

X. Appendices

Appendix A: 2022 Outreach Events



You know what's EGG-CITING?



Not having another toilet overflow!

Only flush the three 'P's':

(Pee, Poop, Toilet Paper)



From your Wastewater Treatment Agencies of Marin County PEEPS. savrbay.com

HIPPIITY HOPPITY MATCHING GAME

Match each item (on the left) to where it should go (either the toilet or trash can on the right) to help prevent a sewer overflow!



Appendix B: 2023 FastFoward Articles



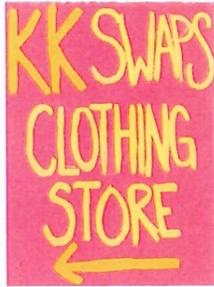
KK SWAPS = Reusing, Repurposing and Recycling Locally

By Emerson Swift
 Tamalpais High School, Sophomore

In the world of fast fashion, nothing is permanent. Trends change every day, causing brands like Shein, Zara, H&M, Forever 21, Uniqlo, Urban Outfitters, and many more to deposit 92 million tons of garments into landfills each year.

This is equivalent to a garbage truck full of clothes ending up in a landfill every second, according to Earth.Org, a nonprofit environmental organization.

Before you read any further, you should probably get acquainted with the Redwood Landfill and Recycling Center. If you live in Marin, that's where your too tight ballcap, the shirt with the band you no longer like, and the sweater that was your favorite for a day live now. Unfortunately, this is only their childhood—they'll outlive you by about 200 years.



But hey! It's not all gloomy.

Kirsi Harris and Kate Rosegard, two Tamalpais High School seniors are now giving your unwanted clothes a new home. They started KK Swaps, a clothing company dedicated

to reusing, repurposing and recycling local clothing. Here's how it works: people price clothes they don't want anymore and leave them at one of KK Swaps' drop-offs. Then Kate, Kirsi, and a handful of friends, tag and organize these clothes in preparation for the sales they hold in Kate's driveway every few months. People will receive 60% of profits made from the clothes they dropped off, and the remaining 40% KK Swaps donates to organizations combating climate change and restoring the environment.

"I feel like people in our community are not very mindful about sustainable shopping and being a conscious consumer," Kate says. "Our friends would often have a bag of clothes in the corner of their room that they wouldn't be using and would be giving away to Goodwill... and a lot of these clothes they were getting rid of were in really great condition." Kate continues to point out how not all items donated to Goodwill found new homes—about 5% end up in the landfill, according to Goodwill CEO William Rogers.

Kirsi adds, "I feel like we created a community of shoppers because our sales are so fun, and... little do they know that they're shopping sustainably."

KK Swaps has been involved in additional events besides their sales over the past year. They have spoken at Park School and Del Mar Middle School to inspire more young people to create change in their communities. They have also partnered with Athleta on Earth Day and later held a fashion show spon-



sored by Athleta at the Mill Valley Lumberyard. Their most recent partnership was with author Diana Kapp who wrote the book *Girls Who Green the World*.

When asked about the advice they would give to people who want to pursue a career in entrepreneurship or environmental science and activism, Kirsi responded, "Don't be discouraged. When we first started KK Swaps, it was all very daunting... Kate and I are very independent people, but we realized we'd be more successful if we had people help us with working the shop, tagging, running the Instagram, and responding to emails."



Kirsi Harris and Kate Rosegard

KK Swaps has repurposed between 2,000 to 3,000 items of clothing in its two years of existence but still has thousands more that need a new home.

Kate and Kirsi are planning their last KK Swaps event, another fashion show, for May and plan to pass the business down to Kirsi's younger sisters. After graduating, they hope to also start branches of KK Swaps in college or encourage others to start their own versions. KK Swaps is a great reminder that anyone can create change in their community as long as they don't give up.

Follow their Instagram @kk.swaps to stay updated and involved with upcoming sale and drop-off dates.

Email: kkswapscommunity@gmail.com.



PROUD TO SUPPORT ENVIRONMENTAL EDUCATION..

Las Gallinas Valley Sanitary District • Central Marin Sanitation District • Novato Sanitary District
 Sewerage Agency of Southern Marin • Sausalito-Marin City Sanitary District • Tiburon Sanitary District
 To report a polluter call 1-800-SAV-R-BAY

EROSION

The Invasiveness of Erosion in our City by the Bay



By Harper Dean
Junior, Urban High School

San Francisco is renowned for its natural beauty, cultural diversity, and vibrant economy. However, the city also faces a critical challenge that threatens its long-term sustainability: erosion. Erosion is the gradual process of wearing away of land or soil due to natural factors such as wind, water, and climate change. In San Francisco, erosion is a significant problem that affects the city's coastal areas, infrastructure, and natural habitats.

The San Francisco Bay Area is one of the most dynamic and complex ecosystems in the world, and the region's natural beauty is a significant draw for tourists and residents alike. However, the coastal areas of San Francisco are particularly vulnerable to erosion due to their proximity to the ocean, exposure to strong winds and storms, and the lack of vegetation to protect against erosion. Coastal erosion in San Francisco is a significant concern as it can damage property, threaten public safety, and erode beaches and other recreational areas.

The effects of erosion can be seen in many parts of San Francisco, from the crumbling cliffs at Lands End to the disappearing beaches at Ocean Beach. The city's iconic Golden Gate Park is also affected by erosion, with the park's lake and pond becoming shallower due to sedimentation caused by erosion. After interning with the Presidio Parks Conservancy, volunteers like myself got to experience the visible effects of erosion firsthand. The Conservancy works to protect San Francisco's federal land from invasive species and natural disasters and cleans up the sites for locals to enjoy the liveliness of the environment. The conservancy opened my eyes to the large scale of environmental issues that affect San Francisco's natural habitats. The program ran on a rotation of sites, where each week we would be immersed in different locations of the city that needed habitat restoration. The conservancy showed me that even in developed cities, environmental issues are still left unresolved that will have great effects on the future that I was unaware of.

They have specifically dealt with the eroding land of trails after the extreme storms this past winter. The city has anticipated the continuous erosion of these trails, but the change in climate activity causing excess mud and deteriorating land has made the maintenance of pathways extremely difficult, and a growing issue without a permanent solution.

Climate change is exacerbating the prob-

lem of erosion in San Francisco. Rising sea levels, stronger storms, and changes in precipitation patterns are all contributing to erosion in the city. The effects of climate change are not just limited to the coastal areas of San Francisco, but also impact the city's water supply, public health, and economy.

Addressing erosion in San Francisco requires a comprehensive and coordinated approach that involves government agencies, community outreach, and private corporations. The city has taken some steps to address the issue, including the establishment of the San Francisco Public Utilities Commission's Green Infrastructure Program, which aims to reduce erosion by increasing the amount of vegetation in the city.

However, more still needs to be done to address the problem. This includes investing in infrastructure that can withstand erosion, improving drainage systems to prevent flooding, and protecting critical habitats and natural resources from erosion, like the Presidio. Developing long-term strategies are essential to address the impacts of climate change and ensure that San Francisco remains a sustainable city for future generations.

In conclusion, erosion is a significant challenge for San Francisco, and it requires a comprehensive and collaborative approach to address. Through ecologically conscious preventives, we can work to protect the city's critical infrastructure and cultural heritage from the damaging effects of erosion and ensure a future for our city.



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Appendix C: 2022 Public Education Brochures

Fats, oils, and grease aren't just bad for arteries and waistlines; they're bad for sewers, too.

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause of overflows is sewer pipes blocked by grease. Grease gets into the sewer from household drains, as well as from poorly maintained grease traps in restaurants and other businesses.

Caution: Grease traps or interceptors at restaurants, large buildings, and other commercial establishments must be properly designed to handle the amount of grease that is expected, be installed correctly, and be cleaned and serviced on a frequent basis.



Las grasas y los aceites no sólo son perjudiciales para las arterias y para la figura; también son dañinos para las alcantarillas.

Los derrames y desbordamientos de aguas residuales pueden ser peligrosos para la salud, dañar el interior de los hogares, y amenazar el medio ambiente. Una causa cada vez más común de derrames es las alcantarillas obstruidas por grasa. La grasa llega a las alcantarillas desde los desagües domésticos y trampas de grasa mal mantenidas en restaurantes y otros negocios.

Advertencia: Las trampas de grasa o interceptores en los restaurantes, edificios grandes y otros establecimientos comerciales deben estar diseñados correctamente de modo que puedan manejar la cantidad de grasa esperada, deben estar bien instalados y deben limpiarse y dárseles servicio con frecuencia.

Helping To Prevent Sewer Overflows and Backups Is Easy.

Where Does the Grease Come From?

Grease is a byproduct of cooking from meat fats, lard, oils, shortening, butter, margarine, food scraps, baked goods, sauces, and dairy products. When washed down the sink, grease sticks to the insides of sewer pipes (both on your property and under the street). Over time, it can build up and block entire portions of your home's plumbing system.

Caution: Home garbage disposals do not keep grease out of the plumbing system. Moreover, hot water and products such as detergents that claim to dissolve grease only pass it down the line and cause problems elsewhere.

The results can be:

- Raw sewage overflowing into your home or the house next door.
- An expensive and unpleasant cleanup often required to be paid for by you, the home or business owner.
- Raw sewage overflowing into parks, yards, streets, and streams.
- Potential contact with disease-causing organisms.
- An increase in operation and maintenance costs for local sewer departments, which causes higher sewer bills for customers.



This brochure was prepared under Cooperative Agreement Assistance CX824505-01-0 between the Water Environment Federation and the U.S. Environmental Protection Agency. For more information, contact your local sewer system authority or the

Water Environment Federation
the water quality people®
601 Wythe Street
Alexandria, Virginia
22314-1994 USA
Tel. 1-800-666-0206
Fax. 1-703-684-2492
www.wef.org

Este panfleto fue elaborado de acuerdo con la Asistencia del acuerdo de cooperación CX824505-01-0 entre la Water Environment Federation y la Agencia de protección ambiental de EE.UU. Si desea obtener más información, comuníquese con su autoridad local del sistema de alcantarillas o con la WEF.



Printed on recycled paper using vegetable-based inks and 100% wind power.

HP1902

3/2010

Es fácil prevenir los derrames y desbordamientos de aguas residuales.

¿De dónde proviene la grasa?

La grasa, uno de los productos derivados de la preparación de comida, está presente en la carne, manteca animal, aceite vegetal, manteca vegetal, mantequilla, margarina, sobras de comida, productos horneados, salsas, productos lácteos. Cuando entra por el desagüe, la grasa se pega al interior de las tuberías de alcantarillado (tanto las de su propiedad como las de la calle) y con el tiempo, puede acumularse al punto de bloquear la tubería por completo.

Advertencia: Los trituradores de basura domésticos no impiden la entrada de grasa al sistema de cañerías. Es más, el agua caliente y los productos como los detergentes que alegan ser capaces de disolver la grasa, pueden trasladarla por las cañerías y causar problemas en otras zonas.

Esto puede traer las siguientes consecuencias:

- Desbordamientos de aguas residuales en el interior de su hogar o el de su vecino.
- Necesidad de una limpieza costosa y desagradable que casi siempre es responsabilidad de usted, el propietario de la casa o el negocio.
- Desbordamiento de aguas residuales hacia parques, jardines y calles.
- Posible contacto con organismos causantes de enfermedades.
- Crecientes costos de operación y mantenimiento para los departamentos locales de alcantarillado y, en consecuencia, facturas más altas para los consumidores.



Fat-Free Sewers

Prevent Fats, Oils, and Greases from Damaging Your Home and the Environment



ALCANTARILLAS SIN GRASA

Evite que las grasas y los aceites dañen su hogar y el medio ambiente

Water Environment Federation
the water quality people®

You Can Help!

Help prevent sewer overflows by:

- Never pouring grease or oils down sink drains or into toilets.
- Scraping grease and food scraps into a can or the trash for disposal (or recycling where available).
- Putting baskets/strainers in sink drains to catch food scraps and other solids, and then emptying them into the trash.
- Speaking with your friends and neighbors about how to keep grease out of sewers.

¡Usted puede ayudar!

Ayude a evitar derrames en las alcantarillas de las siguientes maneras:

- No vierta nunca grasa por el desagüe del fregadero ni en inodoros.
- Raspe la grasa y las sobras de comida y colóquelas en una lata o en la basura para desecharlas (o reciclarlas, si dispone de esta opción).
- Ponga filtros o coladores en los desagües de los fregaderos para atrapar las sobras de comida y otros sólidos, y desheche su contenido en la basura.
- Hable con sus amigos y vecinos sobre cómo impedir que la grasa llegue a las alcantarillas.



WHEN IT COMES TO GARBAGE, IT BELONGS IN THE TRASH.

Your drains are not a trash can. The water from your home or business (toilet, shower, kitchen, etc.) ends up into one of the most beautiful parts of our community, the San Francisco Bay.

Throwing anything other than toilet paper down the drains can cause sanitary sewer overflows (SSOs) and will severely impact your plumbing system, the city's sewer system, and the processes at the treatment plant.



PROPERLY DISPOSING OF YOUR WASTE WILL HELP PROTECT PUBLIC HEALTH AND THE ENVIRONMENT.

1-800-SAV-R-BAY
www.savrbay.org



Central Marin Sanitation Agency
1301 Andersen Drive
San Rafael, CA 94901
(415) 459-1455 www.cmsa.us



Las Gallinas Valley Sanitary District
300 Smith Ranch Road
San Rafael, CA 94902
(415) 472-1734 www.lgvsd.org



Novato Sanitary District
500 Davidson Street
Novato, CA 94945-3399
(415) 892-1694 www.novatosan.com



Sewerage Agency of Southern Marin
450 Sycamore Ave., Mill Valley, CA 94941
(415) 388-2402 www.cityofmillvalley.org



Sausalito-Marin City Sanitary District
No. 1 Fort Baker Road
Sausalito CA, 94965
(415) 332-0244
www.sausalitomarinacitysanitarydistrict.com



Sanitary District No. 5, Tiburon and Belvedere
2001 Paradise Drive
Tiburon CA, 94920
(415) 435-1501 www.sani5.org

RETHINK
WHAT YOU FLUSH...

FLUSH GREEN



PROTECTING WATER QUALITY
STARTS WITH EACH OF US!

Protecting our water quality starts with each of us, so please...

FLUSH ONLY TOILET PAPER IN THE TOILET



the DIRTY DOZEN

all these items belong in the trash, not the toilet



Remember the toilet is not a trash can!

WHERE TO DISPOSE OF HAZARDOUS WASTE

The Alameda County Household Hazardous Waste Program operates a drop-off facility in Hayward, located at 2091 West Winton Avenue. An appointment is not necessary. For specific days and times, call: 1-800-606-6006 or www.household-hazwaste.org

- | ACCEPTED MATERIALS | NOT ACCEPTED MATERIALS |
|--|--|
| <ul style="list-style-type: none"> • Paint, stain, varnish, thinner and adhesives • Auto products such as old fuel, motor oil, oil filters and batteries • Household batteries, fluorescent bulbs, cleaners and sprays • Garden products, including pesticides and fertilizers • Home generated "sharps" waste in approved containers. • Prescription and over the counter medicines, except for controlled substances | <ul style="list-style-type: none"> • Asbestos • Explosives • Railroad ties (scrap) • Railroad ties (usable) • Radioactive materials • Most compressed gasses • Computer Monitors (working) • Computer Monitors (non-working) • CRTs & TVs (working) • CRTs & TVs (non-working) • Computers (working) • Computers (non-working) • Electronic Equipment (working) • Electronic Equipment (non-working) • Microwave Ovens (working) • Microwave Ovens (non-working) |

For more information on disposal and how to recycle other household products and unwanted pharmaceuticals, call or visit the following:

RECYCLING HOTLINE:
1-877-STOPWASTE
www.stopwaste.org
www.earth911.com

To prevent pollution of our waterways, visit: www.baywise.org

"Flushable" does not mean "flushable".

Flushable wipes are clogging sewer pipes!

Flushable wipes do not dissolve in the sewer system. Even if you just flush one, eventually wipes will collect in sewer pipes, pumps and equipment causing clogs and blockages.

THINK BEFORE YOU FLUSH

Clogs and blockages in sewer pipes lead to sewage spills and overflows. Help us avoid sewage spills and overflows and protect our local environment.

- 

Central Marin Sanitation Agency
1301 Andersen Drive, San Rafael, CA 94901
415-459-1455 cmsa.us
- 

Las Gallinas Valley Sanitary District
Las Gallinas Valley Sanitary District
300 Smith Ranch Road, San Rafael, CA 94903
415-472-1734 lgvsd.org
- 

Novato Sanitary District
500 Davidson Street, Novato, CA 94945
415-892-1694 novatosan.com
- 

Sanitary District No. 5 of Marin County
Tiburon and Belvedere, 2001 Paradise Drive
Tiburon, CA 94920
415-435-1501 sani5.org
- 

Sausalito-Marin City Sanitary District
1 Fort Baker Road, Sausalito, CA 94965
415-332-0244 sausalitomarincitysanitarydistrict.com
- 

S A S M
SEWERAGE AGENCY OF SOUTHERN MARIN
Sewerage Agency of Southern Marin
450 Sycamore Ave., Mill Valley, CA 94941
415-388-2402 cityofmillvalley.org

WIPES CLOG PIPES

FLUSH ONLY TOILET PAPER

Protect Your Family, Community and Waterways from Sewer Backups and Overflows

© 2013 Central Marin Agency, Inc.

Wipes clog pipes. Flush ONLY toilet paper.

An overflowing toilet can ruin your home in an instant!

Wipes do not dissolve like toilet paper. Just one wipe flushed down a toilet can collect with other wipes and materials that should not be flushed, contributing to expensive and messy sewer backups in your home or neighborhood. Do your part and put all wipes in the trash. Think Before You Flush!

Baby wipes

Cleaning wipes

Facial wipes

Flushable wipes

CLOG

Photo: Shutterstock © 2013 Central Marin Agency, Inc.

ONLY HUMAN WASTE AND TOILET PAPER SHOULD BE FLUSHED.

THESE ITEMS SHOULD NEVER BE FLUSHED:



Wastewater Treatment Agencies of Marin County



RE SOURCES

For information on...

...disposal of household hazardous waste: In central, south, or west Marin: Call 485-6806. In north Marin call 892-7344.

...used oil collection and recycling: Call 1-800-CLEAN-UP.

...injured wild animals: (other than marine mammals): Call WildCare at 453-1000

...injured marine mammals: Call The Marine Mammal Center at 289-SEAL

...dead marine mammals: Call the CA Academy of Science at 750-7177

...the Adopt-a-Beach Program: Call the California Coastal Commission at 800-Coast-4-U

Printed on recycled paper

Cover photo: The Marine Mammal Center

...how pollutants affect birds: Call National Audubon Society's Richardson Bay Audubon Center at 388-2524.

...National Marine Sanctuaries along the Marin Coast: Call the Farallones Marine Sanctuary Association at 561-6625

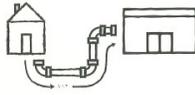
...pollution prevention and how to protect our local waterways, wetlands, and wildlife call:

Marin County Stormwater Pollution Prevention Program (MCSTOPPP): 485-3363

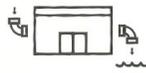
Central Marin Sanitation Agency: 1-800-Sav-R-Bay

Las Gallinas Valley Sanitary District: 472-1734 ext.14

SEWERS



The sanitary sewer system carries wastewater from showers, sinks and toilets in our homes and businesses, through pipes, to a treatment plant.



Here, the water is cleaned up before it is discharged into the Bay. However, some products like paints and pesticides contain compounds that wastewater treatment plants can't remove. Consequently, they pass right through the treatment plant and end up in the Bay!

If a product isn't designed to be placed down a drain - Don't put it there!

STORM DRAINS



Unlike the sanitary sewer system, anything that enters a storm drain goes directly into Marin's local creeks (over 3,000 miles of them).



Although storm drains were designed to carry rainwater, they carry pollutants as well. Motor oil, pesticides, fertilizers, trash, and other pollutants are washed into the gutter by rain or garden hoses - where they find their way into one of Marin's 13,000 storm drain inlets. The water and pollutants ultimately end up in the Bay without passing through a treatment plant. According to the Bay Area Regional Water Quality Control Board, stormwater pollution has become the leading cause of water pollution in the Bay!

This Brochure was produced by Marin County Stormwater Pollution Prevention Program, Central Marin Sanitation Agency and Las Gallinas Valley Sanitary District

WE'RE DYING TO TELL YOU



...pollution hurts more than just the Bay!

Much of the debris and toxic substances affecting marine animals originates on land. Things like pesticides, plastic bags, balloons, cigarette butts, motor oil, and fishing line find their way into local waterways either by means of direct dumping, through storm drains (whatever is left on streets and parking lots can be washed into storm drains which lead directly to local waters), or through sanitary sewers (many toxic chemicals and pesticides by-pass the sewage treatment plant and end up in the Bay).

This brochure lists simple actions you can take to protect our local waterways and the creatures that inhabit them. The journey of 1000 miles begins with a single step-take yours today! *Take action!*



©Doug Perrine/Perseus Vision

DEBRIS CAUSING ENTANGLEMENT



Photo: National Audubon Society

Thousands of cormorants are strangled each year due to six-pack rings, strings, or other debris. When fish and other marine life become entangled in such items, they are often unable to free themselves. Eventually they become exhausted and drown. *Take Action: Cut the loops of six-pack rings before discarding them, thus reducing their danger to wildlife.*



Photo: The Marine Mammal Center

PESTICIDES

Monofilament fishing line can be lethal to seals, sea lions, fish and other animals. This thin line can cause abrasions that become infected and often prevents the ensnared animal from moving about to catch food and avoid predators. At least 267 marine species, including seals, gulls, egrets, herons, pelicans, ducks, loons, jellyfish, starfish, shark, and shellfish have died or suffered injuries from nets, kite string, and fishing line. All of these animals are found in Marin's waterways or the ocean.

Take Action: Retrieve all fishing line, kite strings, and other debris whenever safely possible.



Photo: National Audubon Society

Diazinon and many other pesticides washed from your yard (with rain and overwatering) can kill insects on which fish and birds feed. Certain pesticides persist in the environment and can cause damage for years after their use.

Take Action: Use less-toxic products to control pests. Dispose of unwanted toxic pesticides through your local household hazardous waste collection program. Consult the resource section of this brochure.

DEBRIS MISTAKENLY EATEN



©Doug Perrine/Perseus Vision

Trash that ends up in the bay is often eaten by animals that mistake it for food. For example, leatherback sea turtles can choke to death on plastic bags which they mistake for their favorite food - jellyfish. Birds, whales and other marine life can ingest balloons, plastic bags, cigarette butts and other types of trash which can interfere with the digestion of food, causing starvation. This is not a small problem. During Marin's 1997 Coastal Clean-up Day, over 7,000 cigarette butts (which contain plastic pieces) and

nearly 8,000 pieces of foamed plastic were collected! Such items are often found in the stomachs of dead birds. *Take Action: Don't release inflated balloons and always put deflated balloons in the trash along with debris and other plastic including extinguished cigarettes.*

USED OIL & OIL DRIPS

Used oil in our waterways can cause a lot of damage. It can coat the feathers of ducks, murres, and other water birds making it impossible for them to fly. It can also coat the fur of

young seals and otters making it impossible for them to stay dry and keep warm. This can lead to hypothermia and death. In addition, animals become ill when they ingest oil in an effort to groom themselves. Motor oil can also coat the gills of fish, making it difficult for them to breathe. *Take Action: A lot of the oil that ends up in local creeks and the Bay comes from people like you and me! If your car leaks oil, the oil can be washed down a storm drain on a rainy day. When changing your oil, never place it in the trash or down a storm drain. Recycle your used motor oil and fix any drips. See the resources section of this brochure.*



Photo: The Marine Mammal Center

SOAP



Photo: California Trout Inc.

Soap, from dish-washing soap to car washing soap, is harmful to fish and their food supply. Even biodegradable soap can be poisonous to fish and other water creatures.

Take Action: Rather than washing your car on a street and sending soapy water to the local creek or storm drain, take your car to a commercial car wash where the water can be recycled or directed to a sanitary sewer system and treated before being discharged into the Bay.