



**Clean Bay Project
Final Report
San Francisco Estuary Partnership
Contract# X7-00T04701-1**

Summary of Project Goals and Results

The Clean Bay Project is a unique program established to reduce pollution in the San Francisco Bay by working directly with cities and counties on targeted pollution prevention programs. Funding from the San Francisco Estuary Project (SFEP) under their Estuary 2100 grant from U.S. Environmental Protection Agency (US EPA) enabled Save the Bay to implement this program to identify and prioritize pollutants, produce case studies to successfully address selected pollutants, develop a website dedicated to the Clean Bay Project, and conduct outreach to stakeholders and the public. This report summarizes the goals and results of the project, which has created a base for continued outreach to the public and support for public agencies' Bay pollution prevention actions, and serves as a model for ongoing work.

The overall project goal was to collaborate with Bay Area local governments to promote and replicate proven Bay-friendly best management practices and outreach strategies. The grant totaled \$394,000, with a total match of \$500,000, and covered the period from April 2009 through March 2011. Working directly with cities, Save The Bay provided tools to better protect San Francisco Bay and its watersheds from runoff pollution, and partnered with ABAG, SFEP, and the Regional Water Board to strengthen regional support networks for water quality improvement. Save The Bay also promoted Bay-friendly behavior in area residents by expanding its innovative outreach and engagement strategies to the general public.

By pulling together case studies, fact sheets, web content, and presentations, Save the Bay has helped to expedite local policy development and adoption. These materials highlight best management practices (BMPs) throughout the Bay Area and provide practical information to guide staff as they tailor these policies for their cities and residents. Including extensive use of online social media, Save The Bay has reached at least 150,000 people throughout the Bay Area with our pollution prevention messaging, building critical support for these local actions.

The primary focus of Save The Bay's work over the grant period has been on plastic bags and polystyrene food ware – two litter items that greatly threaten Bay wildlife and wetlands. To date, Save The Bay has identified these BMPs for implementation; single-use bags, polystyrene food ware, private sewer laterals, in-street car washing, dental amalgam, and litter fees.

The Clean Bay Project far exceeded its goal to involve ten Bay Area cities in the Clean Bay Project, having engaged with municipal staff and/or elected officials serving 28 different cities or counties – approximately a quarter of all Bay Area jurisdictions. We

continue to be contacted by cities all over the Bay Area that are interested in pursuing plastic bag and polystyrene food ware bans.

Project Tasks

Project Management (Task 1)

Throughout the duration of the grant, Save The Bay has maintained regular communication with SFEP to evaluate project performance. Based on the feedback we received and our own internal processes, we made organizational changes to facilitate achievement of project goals. Some project management highlights include:

- Quarter 2 – policy staff met with SFEP and EPA to discuss reporting and invoicing processes, project outreach, feedback on BMPs, and communicating with city and agency staff.
- Quarter 3 – the Executive Director and Political Director briefed US EPA on the progress of the project to date.
- Quarter 4 – Save The Bay submitted a revised project scope in January 2010 following our strategic planning process and extensive evaluation.

(Tasks 2 through 5 were completed by the Shoreline Habitat Restoration project, reported on separately, and are not relevant here.)

Research, Develop, and Disseminate BMPs (Task 6)

Through our strategic planning process, which concluded in early 2010, policy staff selected five BMPs from a long list of relevant Bay issues for the Clean Bay Project to focus on. We selected these BMPs based on where Save The Bay could have the most impact and the current level of need for research and advocacy on these issues in the Bay Area. Policy staff completed BMP case studies on single-use bags, polystyrene food ware, private sewer laterals, in-street car washing, dental amalgam, and universal waste. Several of these case studies have been reviewed and updated several times, as new information became available.¹

Policy staff shared case studies with municipal staff and SFEP for input. Save The Bay posted finalized case studies on the Municipal Resources page of our website and the plastic bag and polystyrene case studies have been widely distributed to municipal staff and elected officials serving approximately a quarter of all Bay Area cities.

In addition to our BMP case studies, the Clean Bay Project completed a Trash White Paper. Policy staff wrote this paper to assist cities with trash reduction considerations as they select their trash hot spots under the Municipal Regional Stormwater Permit. The white paper outlines the major regulatory instruments being used to control trash in

¹ Save The Bay also prepared a near-final case study on business litter fees. However, with the enactment of statewide Proposition 26 and litigation against San Francisco's tobacco litter fee, we have suspended circulation of this case study.

stormwater, explores sources of data to help cities quantify the trash problem, and discusses trash reduction strategies. Policy staff circulated the white paper to numerous Bay Area cities, municipal survey participants and interested environmental organizations. Several cities have subsequently cited the MRP requirements as a driver for pursuing plastic bag and polystyrene food ware bans.

Outreach to Local Government (Task 7)

The Clean Bay Project started with a list of ten cities – Alameda, Emeryville, Fremont, Hayward, Milpitas, Palo Alto, San Francisco, San Mateo, San Rafael, and Santa Clara – identified as a representative sample across a range of criteria, including size and geographic diversity. The Project's work quickly expanded beyond these ten jurisdictions to include cities and counties throughout the entire Bay Area, with particular emphasis on municipalities throughout the counties of Alameda, Contra Costa, San Mateo, Santa Clara, and Marin.

The Clean Bay Project has engaged with municipalities using tools such as surveys and workshops and by participating in local and regional policy processes. The following are highlights of Save The Bay's municipal engagement.

San Jose:

Save The Bay identified the City of San Jose early on as providing a key opportunity for making progress in trash reduction, based on political and senior staff leadership as well as its unique position as the region's largest city. After significant early outreach and education, the Clean Bay Project (then known as Cities Keep It Clean) was formally endorsed by the City Council in October 2008. The Clean Bay Project team attended stakeholder meetings, provided public comment, and reached out to interested groups and individuals, surrounding cities, local organizations and businesses throughout an extensive period of outreach the city conducted on its potential single-use bag ban.

The City Council first voted to move forward with drafting an ordinance and completing an environmental review for plastic bags, and then passed the nation's strongest single-use bag ordinance by a vote of 10-1 in December 2010.

San Jose is now pursuing a polystyrene food ware ban, and has reached out to Save The Bay to provide input throughout the process.

Santa Clara County:

Save The Bay engaged extensively with the Santa Clara County Recycling and Waste Reduction Commission (RWRC) on plastic bags by sending materials, providing public comment, and attending meetings. These efforts facilitated the RWRC's May 2009 recommendation that all Santa Clara County jurisdictions pass bans or fees on plastic bags.

Our continued engagement with the county on plastic bags helped to lay the foundation for an April 2011 vote by the Board of Supervisors to pass a single-use bag ordinance in the unincorporated areas of the county.

The Clean Bay Project has similarly engaged closely with the RWRC on its process around a Styrofoam recommendation (which culminated, outside the grant period, in a unanimous vote to recommend a ban on polystyrene in late June 2011).

Fremont:

Policy staff became involved with the city’s process of preparing to ban polystyrene food ware, including sharing our case study, attending public meetings, and reaching out to the council.

Municipal Pollution Prevention Survey

As our involvement on trash reduction and pollution prevention issues grew throughout the Bay Area, the Clean Bay Project identified the need to gain a better understanding of which Bay-friendly programs were already in place, in one form or another, or were being planned for each city and county. To collect this information, Save The Bay launched a comprehensive online survey – the Municipal Pollution Prevention Survey – which was distributed to municipal staff throughout the Bay Area. Our final response rate was nearly 80%. Policy staff integrated the survey results into our contacts database so that this information could be easily queried and analyzed.

Bay Trash Hot Spots

Our annual Bay Trash Hot Spots campaigns (detailed below under Task 8) gives Save The Bay the opportunity to engage with each of the cities where hot spots were located. In 2009, our trash hot spots included ten locations where the most plastic bags were collected by volunteers on Coastal Cleanup Day the previous year.

The 2009 hot spots included:

- Albany-Berkeley-Emeryville shoreline (Alameda County)
- Antioch Shoreline (Contra Costa County)
- Belden's Landing (Solano County)
- Burlingame Bayfront to Mills Creek, Millbrae (San Mateo County)
- Candlestick Park (San Francisco)
- Coyote Creek (Santa Clara County)
- Mare Island Strait (Solano County)
- Richmond shoreline from Shimada Friendship Park to Point Isabel (Contra Costa County)
- Ryder Park (San Mateo County)
- Warm Water Cove (San Francisco)

In 2010, we highlighted 225 hot spots throughout the Bay Area. These locations were identified by jurisdictions themselves as a part of their requirements under the Municipal Regional Stormwater Permit, which adopted Save The Bay's "trash hot spot" terminology. This regulation governs municipalities and agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, as well as the cities of Fairfield, Suisun City, and Vallejo, comprising about 72 percent of the Bay Area's population.

Municipal Regional Stormwater Permit

Policy staff maintained communication with Water Board staff throughout the stormwater permit development process. Save The Bay worked to provide strategic input toward the goal of achieving meaningful reductions in trash flowing to the creeks and Bay. The focus of our work was to seek a regulatory framework with sufficient specific criteria and identified goals for permittees and the public to be able to determine whether real progress was being made, such as the inclusion of a "zero trash" goal in the final permit.

The Water Board's encouragement of product bans for plastic bags and Styrofoam in the stormwater permit has proven a powerful economic as well as environmental incentive for cities considering these ordinances.

Clean Bay Project Workshops

Save The Bay partnered with the City of San Jose to hold a pollution prevention workshop in October 2009 for municipal staff interested in plastic bag and polystyrene bans. Sixty participants representing over 20 Bay Area municipalities attended the workshop.

This first Clean Bay Project workshop focused on plastic bags and polystyrene food ware, with a panel of experts for both issues. Panelists included municipal staff from cities that had implemented bans, representatives from organizations active on plastics pollution issues, a representative from the California Grocers Association, and a compostable food ware company.

The Clean Bay Project posted the presentations and other materials from the workshop on our website so that they were accessible after the event (<http://www.savesfbay.org/municipal-resources>). The workshop sparked interest in the Clean Bay Project from several cities, including Richmond and Alameda.

The Clean Bay Project played a leadership role in planning the Plastic Pollution Prevention Summit, which was held in February 2011. The summit gathered over 100 municipal staff from around the Bay to share strategies and lessons learned for preventing plastic bag and polystyrene pollution in our waterways. Policy staff worked with municipal staff from several South Bay cities to plan the event, which included recruiting and organizing panelists and speakers and inviting participants. The Policy Associate and the Chief Strategy Officer also gave

presentations at the event. Participants found the summit highly informative and many have asked to participate in future events planned by this group.

Presentations from the Summit are currently posted on our website (<http://www.savesfbay.org/municipal-resources>).

State-level policies

Save The Bay has also worked to inform the public regarding policies at the state level that will benefit the Bay and Bay Area cities.

General Public Outreach and Education (Task 8)

The Clean Bay Project has more than achieved our goal of reaching 25,000 people through outreach and education, with extensive exposure for pollution prevention issues in print, television, and radio media. For example:

- The San Jose City Council's plastic bag ban vote was the subject of a lead editorial in the *San Jose Mercury News*, as well as numerous significant stories across all types of media.
- Our annual Bay Trash Hot Spots campaigns highlight the trash problem in the Bay for the general public. The Bay Trash Hot Spots 2009 and 2010 campaigns were a major success; the 2009 effort alone generated 71 media hits, which included 16 in print, nine television stories, two radio stories, 21 online media stories, and 23 blog mentions and features.

Online communications

Our online communications capability has grown extensively throughout the project. The Bay Trash Hot Spots website <http://www.savesfbay.org/baytrash> is our main communications tool for this campaign. For the 2010 effort the Clean Bay Project staff designed a detailed map showing the 225 official trash hot spots. While these locations were identified by cities themselves in accordance with their MRP requirements, the information and mapping was not made available in an accessible manner by the Water Board.

The 2010 BTHS campaign also included an adopt-a-waterway contest. In 2011, Save The Bay agreed to adopt and clean up the waterway that received the most votes by the public. Seven waterways from around the Bay were included in the contest, and extensive outreach was conducted by Save The Bay and the cities in which these waterways are located. Redwood Creek was the contest winner, and Save The Bay has already participated in, and helped to plan, two cleanups there this year. Volunteers collected 1,200 pounds of trash during the February cleanup (in partnership with the Redwood Creek Preservation Trust) and an estimated 2,000 pounds during Redwood City's Spring Cleanup event in April.

The Clean Bay Project made use of Facebook, Twitter, and Save The Bay's e-newsletter to communicate policy developments and updates to our 25,000 online members (<http://www.savesfbay.org/connect>).

Highlight: The Bay vs. The Bag

Save The Bay contracted with Free Range Studios to create a viral stop motion film featuring our messaging on plastic bags in the Bay. Save The Bay conducted an extensive public and media outreach campaign to promote this film as an education and outreach tool. The video can be viewed here: <http://www.savesfbay.org/bay-vs-bag>

Meetings and conferences

Throughout the project, Policy staff participated in several conferences and meetings that provided opportunities to promote the Clean Bay Project and the value of working with Save The Bay on plastic bag and polystyrene ordinances.

- The Policy Associate gave an overview of the Clean Bay Project at the California Resource Recovery Association 2010 annual conference
- Policy staff presented at the State of the Estuary Conference in 2009
- Policy staff regularly participated in meetings and collaboration with the Clean Seas Coalition, a group of representatives from organizations interested in coastal/ocean pollution issues, particularly plastics pollution.

Project Evaluation (Task 9)

The Clean Bay Project was the subject of internal and external evaluation throughout the contract period. Most notably, Save The Bay conducted a thorough review of the Clean Bay Project in its early phases to reevaluate goals and objectives in light of progress to date, and the project's core documents were closely reviewed by SFEP and ABAG professional staff.

The Clean Bay Project evaluation process was informed by Save The Bay's strategic plan consulting process and review; feedback from meetings and conversations with city staff, regulatory agency staff, other environmental organizations and SFEP; and results of the Save The Bay municipal survey, and BMP research.

Summary of Outputs, Outcomes and Accomplished Deliverables

Fourteen local governments participating in program – the following municipalities have either adopted, or are in the process of adopting, plastic bag and/or polystyrene ordinances:

1. City of Alameda
2. Berkeley

3. Emeryville – partnership with Save The Bay and participation in the Clean Bay Project was formalized by a resolution of the City Council
4. Fremont
5. Hayward
6. Marin County
7. Milpitas
8. Palo Alto
9. Richmond
10. San Francisco
11. San Jose – partnership with Save The Bay and participation in the Clean Bay Project was formalized by a resolution of the City Council
12. San Mateo County
13. City of Santa Clara
14. Santa Clara County

The following seven case studies illustrating BMPs were prepared, distributed and revised:

1. Single-use bags
2. Polystyrene food ware
3. Private sewer laterals
4. In-street car washing
5. Dental amalgam
6. Universal waste
7. Business litter fee (final draft)²

These BMPs were widely circulated in a variety of manners, including individually directly to dozens of city staff and elected official contacts throughout the Bay Area as well as being distributed at our two workshops, which were attended by over 160 different individuals from dozens of jurisdictions. City staff used the case studies to varying extents and in different manners, but a number reported that they found the case studies helpful when preparing staff reports and councils presentations.

All BMPs are housed on this website: <http://www.savesfbay.org/municipal-resources>

150,000 people reached by public outreach campaign

- *The Bay vs. The Bag* video and associated campaign reached over 150,000 people; 4,000 new individuals added their names to Save The Bay's contact list and began receiving regular updates with pollution prevention messages. Policy and Communications staff secured over 70

² Policy staff completed a draft of the litter fee case study. However, with the enactment of statewide Proposition 26 and litigation against San Francisco's tobacco litter fee, we have suspended circulation of this case study.

favorable media stories about pollution prevention issues and the campaign against plastic bags and Styrofoam.

- Repeated posts on our blog, Facebook, and Twitter, and articles in our Bay Monthly e-newsletters reached our 25,000 online supporters on a monthly, and often daily, basis. Action alerts covered by match funds demonstrated a very high level of interest and support for these programs and issues:
 - San Jose’s proposed bag ordinance – this update was sent to our entire list of supporters (Bay Area-wide). We had 817 action takers for a 4.5 percent action rate.
 - San Mateo County proposed polystyrene ban – this email was sent to our supporters throughout the county. We had 144 action takers, which was a 29.3 percent action rate.
- Our 2010 Bay Trash Hot Spots Adopt-a-Creek Contest was another significant outreach success. It is described above.

Documentation of 11 Clean Bay Project BMPs Adopted by Local Government in Planning Documents, Resolutions & Policies

1. City of Palo Alto plastic bag ordinance – adopted March 2009
2. City of Richmond sustainable food ware ordinance – adopted October 2009
3. City of Fremont expanded polystyrene food ware ordinance – adopted May 2010
4. City of Milpitas staff report – September 21, 2010
5. City of Hayward polystyrene foam food ware ordinance – adopted October 2010
6. City of San Jose single-use bag ordinance – adopted December 2010
7. San Mateo County polystyrene food ware ordinance – adopted February 2011
8. Marin County single-use bag ordinance – adopted January 2011
9. Santa Clara County DRAFT single-use bag ordinance – approved March 2011
10. Alameda Co. single-use bag EIR (Stopwaste.org)
11. City of Sunnyvale single-use bag ordinance (under study, June 2011)

Evaluation

Lessons learned

Save The Bay greatly benefited from the opportunity to work in partnership with the San Francisco Estuary Partnership and the US EPA. We were able to draw on a considerable amount of resources from SFEP, in particular, to test and hone our BMPs as well as deepen our outreach into the community of city officials. A

good example would be the December 2009 Clean Bay Project presentation to the ABAG Hazardous Waste Committee.

Bay Area cities want to prevent plastics pollution. This point is clearly made by the level of interest city staff has shown in our workshops and case studies. And it is evident from the level of interest and support by elected officials from all around the region. A number of municipalities have reached out to the Clean Bay Project as their city prepared to take action against bags or polystyrene, with a specific interest in finding the most relevant, useful and scientifically-rigorous information.

Cities that have been reluctant to move forward with ordinances have cited the threat of expensive lawsuits or the environmental compliance required to avoid legal action as a major deterrent. Additionally, the current economic climate in the state has made some city councils especially sensitive to any new regulations on the business community. However, most of the cities that have not yet moved forward with ordinances have asked their staff to research these issues and to monitor proposed state regulations on bags and polystyrene.

Funding remains, as always, a significant barrier faced by cities that want to clean up their creeks and the Bay. This Clean Bay Project reporting period overlapped with a major national recession, with pollution prevention activities competing for attention and resources with public employee layoffs and reductions in critical social services. Save The Bay staff have worked to support pollution prevention policies while remaining alert to, and informed about, the challenges cities face. Save The Bay has learned to highlight the economic benefits for city governments, businesses and even residents, of banning commonly littered items.

It is clear that the public has a growing disdain for single use plastics. The Clean Bay Project has learned that communicating this sentiment is a central element in outreach and education around bag and polystyrene food ware bans. Supportive staff and city council members have repeatedly asked us to encourage attendance at council meetings where a vote on a bag or polystyrene ordinance is scheduled. Additionally, council members have, on more than one occasion, cited the number of emails they received from residents in support of an ordinance as a reason why they are supporting it themselves. While statistics about creek litter, the Great Pacific Garbage Patch, and biodegradability may be compelling, the voice of the community is what often tips the scale in favor of eliminating single-use plastics.

As a regional leader in the fight against plastics pollution, Save The Bay has gained significant experience in interacting with, and responding to, the plastics industry. Our fact sheets and case studies address the common arguments made by industry and present scientific and economic data that challenge their claims with facts. For example, when industry asserts that recycling polystyrene

food ware is the best solution, we point out that most facilities are landfilling it – even though residents are told they can put it in their recycling bins. Recycled polystyrene foam simply does not fetch a high enough market price for this process to be economically sustainable. When industry claims that banning plastic bags will only lead to an increase in the use of paper bags, we point out that a small charge on paper – as low as five cents – can drastically influence consumer behavior and encourage a transition to reusable bags. Evidence of this is demonstrated by Washington D.C.’s bag fee. As the body of knowledge on plastic bags, polystyrene, and alternative products grows, the intensity of the response from industry escalates as well. Save The Bay staff are now well-equipped to engage in discussions about plastics from a water quality, source reduction, sustainability, recycling, and solid waste perspective.

Future work

Save The Bay’s Clean Bay Project is committed to continuing to work to move forward its pollution prevention efforts. We look forward to taking up others of the BMPs which have yet to be more fully explored.

To give just a few examples of recent work:

- 1) The County of Santa Clara’s Recycling and Waste Commission voted unanimously to recommend that all jurisdictions in the county ban polystyrene, June 2011
- 2) The City of Burlingame voted to ban polystyrene, May 2011
- 3) The City of San Carlos is planning to address single-use bags, June 2011
- 4) The County of Alameda’s Stopwaste.org is moving forward with an EIR on single-use bags and related issues, 2011
 - a. This effort should provide a platform for single-use bag bans by cities throughout the county in 2012
- 5) Save The Bay is working on a trash panel for the State of the Estuary Conference in 2011.