

## **Draft California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea Public Comments**

The public comment period was open from September 14 through October 16, 2017 and 22 comments were received. In addition, there was one late submission that was received and also included in this document. Please see the updated *Draft California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea* for specific Action Items for which organizations volunteered to be a lead or partner organization. The planning team provided guiding questions for reviewers to address which can be found [here](#) and are summarized below.

### **1. General Summaries**

<b>#</b>	<b>Commenting Organization</b>	<b>Summary</b>
<b>1</b>	California State Parks Division of Boating & Waterways; California Coastal Commission	Included examples of fishing line recycling station projects: <a href="http://dbw.parks.ca.gov/?page_id=29426">http://dbw.parks.ca.gov/?page_id=29426</a>  Suggested putting California State Parks Division of Boating & Waterways and California Coastal Commission down for Action Item 5.5.3. Suggested revisions to how the organization's name appeared in the Draft.
<b>2</b>	San Francisco State University	Identified Action Items that the Institute for GIS at San Francisco State University is interested in assisting to implement, and specified how the Institute could help (for 1.1.2, interested in creating a Story Map describing efforts to ban single use items at SFSU/other CSUs; for 2.1.1, interested in talking with SFSU's Office of Sustainability to see where geospatial services could be of use - locating water stations on campus, etc.).  Small clarification questions in the introduction. Raised questions about tackling homelessness/homeless encampment trash - not convinced that it is worthy of being called out specifically (any worse of an issue than trash from homeowners/renters?), outside scope of document/time scale?
<b>3</b>	Ecoconsult	Provided the following feedback: <ul style="list-style-type: none"> <li>• Tribes are mentioned a few times. Are there any tribes reviewing and commenting on this?</li> <li>• Added specific comments on a few Strategy and Action Items</li> </ul>
<b>4</b>	CSU Channel Islands	Identified Action Items that the Environmental Science and Resource Management Program at CSU Channel Islands is interested in working on and why (4.2.1 - understanding the types of materials contributing to microplastic pollution may help us identify effective strategies for source reduction; 4.2.2 - interested in developing standardized methods for monitoring/measuring reductions in litter; 4.4.1 - ongoing research on ecological/physiological impacts of micro plastics; have ongoing research and/or expertise that could contribute to all three).
<b>5</b>	California Lost Fishing Gear Recovery Project & UC Davis Wildlife Health Center	Consider reworking the priority strategies - the "if" in #1 gives us an easy out - could be restated as "Prohibit single use...AND develop non-damaging alternatives"; is #2 more of a meaningful step/strategy toward achieving #1? - Use of "Prohibit" in #1 and "Require the phase-out" in #2 may be contributing to this.

6	American Chemistry Council	Recommend that the primary ocean litter strategy should focus on increasing access to recycling, identifying additional infrastructure improvements that could be made and combining these efforts with public outreach and education to reduce litter and increase diversion of recyclables. ACC strongly opposes the draft Strategy's focus on eliminating certain plastic products while ignoring the impacts and litter of alternatives. ACC is, however, interested in being a constructive and solutions-oriented partner in discussions addressing the responsible use of plastics and would like to work with the OPC to develop statewide policies to address commonly found marine debris items such as straws, stirrers and polystyrene packaging.
7	California Chamber of Commerce	<p>We believe the detailed and thoughtful comments submitted by the American Chemistry Council provide important information and urge serious consideration of those comments.</p> <p>While product bans are often considered (as proposed in the Strategy), experts opine that improving waste management is key to addressing marine debris. Biodegradable alternatives, which are beneficial in certain uses, can contaminate recycling streams and create the false perception within the public's view of biodegradability under any circumstances, leading to increased litter and marine debris.</p>
8	CalRecycle	<p>Specific feedback on some text; General comments include 1) Further refining and grouping Action Items (give examples), 2) identify how priority strategies will be achieved, 3) include approximate cost of implementing each Action Item; who will enforce? 4) Clarification regarding "Status of Action" column, new efforts vs ongoing. Identify the lead and partner org. for ongoing efforts, 5) Additional detail on historical events or lessons learned for Action Items</p> <p>Additional details concerning how Action Items may be achieved, cost considerations, and background on previous attempts to implement them would be helpful.</p>
9	American Institute for Packaging and the Environment (AMERIPEN)	<p>Supports the American Chemistry Council's (ACC) Plastics Division's comments on this document. AMERIPEN's review of effective waste management practices in communities throughout the U.S. identified pay-as-you-throw, universal access to recycling, and landfill bans with material collection plans as the most effective way to create effective consumer packaging recycling programs and therefore prevent marine debris.</p> <p>Attempts to reduce marine debris through product bans fail to recognize the underlying source of marine debris in the U.S. – litter that is not properly recycled or disposed of and consumer behavior. AMERIPEN specifically recommends focusing on increasing access to recycling and public outreach and education to reduce litter and prevent ocean debris while creating highly effective recycling systems.</p>
10	California Association of Sanitation Agencies (CASA), Bay Area Clean Water Agencies (BACWA), Southern California Alliance of Publicly Owned Treatment Works (SCAP)	Supportive of source control, product stewardship, and replacing use of plastic in products with alternatives when available (Priorities 1 & 2). While local efforts may be appropriate in some instances, we believe that source control of plastic products will be most effective at the federal or state level. Source reduction efforts focusing on the items identified in Objectives 1 & 2 are likely to be the most beneficial at this point in time. At this time, efforts should focus less on ways to reduce microfibers in wastewater and much more on doing the work needed to standardize sampling and detection methods. We strongly recommend that OPC develop an integrated strategy for advancing this research, working in cooperation with SFEI, the Water Environment and Reuse Foundation, and the Associations. Filled out tables. Would like the OPC to consider adding a priority area to explore the potential for mitigation of macroplastics already in the environment.

11	CSU Council on Ocean Affairs, Science, & Technology (COAST)	Filled in tables with CSU-affiliated partner and lead organizations/individuals, and explanations of previous work that these organizations/individuals had conducted or are conducting. Facilitated commentary from CSU faculty.
12	CA Restaurant Association	In support of the American Chemistry Council's comments on the draft Ocean Litter Prevention Strategy. Marine debris is a serious issue, however the discriminatory approach of selecting and eliminating a given type of food service product has proven an ineffective approach. The California Restaurant Association supports increasing access to recycling programs and public outreach and education to reduce litter and increase the diversion of recyclables.
13	California Sea Grant	<p>Recommended linking the 3 priority strategies to the Objectives that they address/fall under (it's unclear how they fit into the framework at the outset). Provided suggestions for Needs &amp; Barriers associated with various Action Items (see comments on Draft). Provided additional Action Items and feedback on table.</p> <p>Addition to Action 4.5.1: tests of efficacy of proposed Trash Amendment Option 2 solutions. Strategy 3.3 (Supporting the Trash Amendments) seems like it can fall under all Objectives. Strategy 3.4 (Engaging with homeless communities) should be reworded and/or should include "and relevant organizations." Action 4.1.1 comment - we may know enough about trash sources from existing data, and we should weigh whether we want to take another 5 years to study this, or start working on solutions. Strategies 5.1 and 5.2 comments - include registration and labelling of gear so that gear can be returned to industry users.</p>
14	CSU Long Beach	Provided specific comments on Action Items 4.2.1, 4.2.2, 4.4.1, 4.4.2: Reiterated the need for sampling protocols/methods that accurately characterize microplastics in the environment (especially very small microplastics), also the need for better/more accessible processing methods (FTIR, organic digestion methods); emphasized that more extensive studies should be done on chemicals that sorb to plastics in contaminated water, and the amount of desorption of ingested plastic particles (bioavailability models of different pollutants to model how they move up the food chain, etc.)
15	Heal the Bay, California Coastkeepers Alliance, Californians Against Waste, and Seventh Generation Advisors	<p>This document should present a big picture, goal-oriented path forward that state agencies and partners can follow to achieve a collective ocean litter prevention goal, which we recommend be zero trash entering California's waterways. We recommend that this goal be stated clearly, towards the beginning of the document, and that the objectives be presented as a framework to achieve this goal. Furthermore, we urge the Planning Team to make each objective numeric and time-bound, to facilitate straightforward monitoring and reporting.</p> <p>We strongly support the inclusion of a priority that focuses on microplastics.</p> <p>Would like the Executive Summary to include a summary of the 2008 Strategy actions.</p>
16	NOAA Marine Debris Program	<p>Overall supportive of the draft Strategy structure and content, and appreciative of the collaborative effort. The three priorities were a bit confusing - it wasn't clear why those 3 were elevated when there aren't that many Objectives/Strategies to begin with, perhaps there should be more justification for the priority strategies, and perhaps they should be highlighted better in the table. Mixed opinions about the level of detail included in the Background section - some liked it, some didn't.</p> <p>Terminology used in the Draft is a bit confusing (the document is called a Strategy, while you also have Objectives,</p>

		<p>Strategies, and Actions within the document - could be streamlined/tweaked, perhaps to Goals --&gt; Objectives --&gt; Actions).</p> <p>Needs &amp; Barriers column is useful, but may not be needed in the Final document - these will change depending on the lead/partner organizations involved. Potential gaps in Action Items: include more education-based Actions, a removal Action focused on consumer debris or ADVs (or some other debris other than fishing gear)?</p> <p>Using "ocean litter" in Obj 5 seems strange as it is focused on aquaculture/fishing gear - either use "marine debris" or "fishing and aquaculture gear."</p> <p>Appendices - good to include progress report on 2008 Strategy, can remove Appendix B - too wordy, and the ideas are captured in the Action Items.</p>
17	Monterey Bay Aquarium	<p>If possible, change the word "litter" to "pollution" or "trash." The word litter implies a small-scale problem. MBA to play a support role where helpful for Objectives 1, 2, &amp; 3.1. Objective 4: MBARI has worked on it in the past (see link to recent larvacean study), unsure if this is still a focus moving forward. MBA Conservation Research are currently conducting a study on microplastic gut/tissue contents of commonly consumed fish. Objective 5: These activities could be informed by our Seafood Watch (SFW) Program. The SFW Aquaculture program incorporates plastic pollution as a (minor) criteria under their Standard for assessing aquaculture operations. The broader SFW team would also likely have good resources/recommendations for fishing gear questions.</p>
18	San Francisco State University	<p>Provided specific comments on Action Items 5.1.3, 5.3.1, 5.5.1. 5.1.3: could include a similar Action Item focused specifically on commercial fishing gear (line, traps, nets, etc.) - would enhance gear tracking, owner responsibility, and allow for expanded buyback programs in fisheries (aside from just crab fisheries). 5.3.1: could include other gear in this Action Item (monofilament and long-lasting plastics are the problem, rather than just fishing line), including rope used to secure traps/pots. 5.5.1: buyback programs for all fisheries in CA could be implemented if more rigorous gear identification was required (contact info, ID #s on each piece); this document could include/mention buyback programs for many fisheries (and stipulate that identification requirements need to be worked out for these programs/fisheries too)</p>
19	UPSTREAM, Clean Water Action/Fund, 7th Generation Advisors	<p>Overall the action items included in the Draft seem like a compilation of what is being done and what engaged stakeholders anticipate they will do; Strategy doesn't set out a vision for what the state and federal agencies (i.e. OPC and NOAA) plan to do or what the overall goals for CA should be. Next workshop, participants should consider specific goals that need to be accomplished and benchmarks/metrics for these goals. Happy with focus on source reduction over control/cleanup. Regarding priorities, suggest using a <i>most significant products</i> approach to setting priorities - minimizing the use of the products most likely to enter waterways/oceans. OPC &amp; NOAA should accompany Strategy with implementation and evaluation process.</p>
20	BCB & Associates	<p>Expressed concern about pollution from construction sites. Every discipline should adhere to best management practices for their industry.</p>
21	NOAA Channel Islands National Marine Sanctuary	<p>CINMS would like to partner on a number of Action Items in Objective 5 (particularly about lost fishing gear: 5.1.1, 5.2.2, 5.4.1, 5.4.2, 5.5.1, 5.5.3, 5.5.4). Agreed with the 3 litter strategy priorities, with the option to include a 4th specifically about reducing ocean-based litter (lost gear).</p>

22	San Francisco Estuary Institute (SFEI), Southern California Coastal Water Research Project (SCCWRP)	Identified Action Items that SFEI, 5 Gyres, and SCCWRP can be listed for, and explained ongoing work that these three organizations are doing that can fit into the Action Items identified.
23	Environmental Protection Agency, Region 9	<p>Provided comments on the objectives. In addition, provided examples of activities that support objectives, mentioned two “border” projects currently under consideration for funding to mitigate trash in the Tijuana/San Diego region:</p> <ul style="list-style-type: none"> <li>• Border 2020 grant to SWIA to “reduce plastic bags” impacting the Tijuana River watershed. The workplan is still undergoing review.</li> <li>• Commission for Environmental Cooperation (CEC) grant to promote practices to prevent land-based sources of trash and engage citizen science in the solutions. (<a href="http://www.cec.org/sites/default/files/documents/opportunities/op17-18_marinelitter_rfp_tijuanariver_final_e.pdf">http://www.cec.org/sites/default/files/documents/opportunities/op17-18_marinelitter_rfp_tijuanariver_final_e.pdf</a>)</li> </ul> <p>Shared information about a past grant with PFEA, a nonprofit in Tijuana that worked to adapt “ocean friendly practices” in Tijuana, based on work done in San Diego. These types of projects also benefit the CA coastal environment, given trash from Tijuana also ends up in CA. <a href="http://pfea.org/ram/amigodelmar/">http://pfea.org/ram/amigodelmar/</a> (see videos in English and Spanish that could be adapted for use in CA).</p> <p>Objective 1 and 2, accurately reflect EPA’s position that the best approach to mitigate trash, including marine litter, is through source reduction, or waste prevention, (i.e. “practices that reduce the amount of materials entering the waste stream, including changes in the design, manufacture, purchase or use of materials” (EPA, 2016). We also support objective 3 and 4 and provide grants and collaborative efforts to educate the public and promote behavior change that prevents land-based sources of trash, in combination with other tools, such as provisions of adequate infrastructure and services, regulation and enforcement, and research and development.</p>

**2. Do you think five years is the appropriate time scale for this document? Do you think it would be better if the time frame was longer or shorter?**

#	Commenting Organization	Summary
1	California State Parks Division of Boating & Waterways; California Coastal Commission	Thought five years was an appropriate time scale.
2	San Francisco State University	Thought parts of this document could be achieved in 5 years (e.g. phasing out single-use products and providing alternatives at a local level), while others (e.g. alleviating homelessness in San Francisco to

		reduce pollution from homeless camps) will take longer.
3	Ecoconsult	Shorter timelines light a necessary fire, so 5 years is good.
4	CSU Channel Islands	Five years is an appropriate time scale.
5	California Lost Fishing Gear Recovery Project & UC Davis Wildlife Health Center	Five years is an appropriate time scale for the document, but there are some Action Items that will clearly/likely take longer to implement (e.g., 1.1.5, 1.2.3, 1.3.5, 2.1.5, 2.1.7, 4.4.2) - perhaps these should be identified as 10 year Actions or listed in a separate section?
6	American Chemistry Council	<p>Yes, 5 years is an appropriate time scale for this document. While we believe the timescale for the Strategy is appropriate, we are concerned with the reliance on product bans to achieve a reduction in marine debris.</p> <p>While contributors to the Draft Strategy contend that the specific action items identified in the document are economically feasible for California to accomplish within the next 5 years, the document does not contain any analysis or discussion on the impact of the policies proposed in the Draft Strategy. For the reasons outlined above, proper consideration should be given to the economic implications of the policies contained in the Draft Strategy.</p>
7	California Chamber of Commerce	Supports the American Chemistry Council's (ACC) Plastics Division's comments
8	CalRecycle	<p>If this question is asking whether five years is an adequate timeframe to achieve <i>all</i> the strategies and action items presented in the document, then we believe the time required to implement them will vary. In some instances, a 5-year period (or less) is realistic. For example, it would be feasible to develop toolkits, perform evaluations of existing programs, complete a research contract, introduce legislation, etc.</p> <p>However, some of the strategies (implementing a statewide ban, meaningful voluntary packaging redesign, etc.) may not be achievable within a 5-year period and could require a much longer timeframe and a coordinated effort. For example, CalRecycle has been engaging with a variety of stakeholders in the packaging industry for over four years in an attempt to spur voluntary approaches to improving packaging design and minimizing waste, but has observed minimal progress.</p>
9	American Institute for Packaging and the Environment (AMERIPEN)	Supports the American Chemistry Council's (ACC) Plastics Division's comments
10	California Association of Sanitation Agencies (CASA), Bay Area Clean Water Agencies (BACWA), Southern California Alliance of Publicly Owned Treatment Works (SCAP)	Five years is an appropriate time scale. It will take 5 years to develop the appropriate methods and conduct the needed impact and source tracking research. After that, an additional assessment of needed action items should be made based on best available knowledge.
12	CA Restaurant Association	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
13	California Sea Grant	Not sure whether 5 years is appropriate timeline - should think about whether strategies proposed could be implemented and effectiveness measured in that time frame (as well as whether another

		Strategy could be updated, considering it takes ~1 year to do that alone).
15	Heal the Bay, California Coastkeepers Alliance, Californians Against Waste, and Seventh Generation Advisors	We support the 5-year time horizon, though we would like to see annual progress updates scheduled to assess Strategy implementation. We would likely support a longer time horizon if the objectives included more specific, time-bound milestones, as some major progress might take more than 5 years to advance.
16	NOAA Marine Debris Program	Mixed thoughts on time scale: Unsure whether the priority strategies can be accomplished in 5 years, 5 years sounds good but it could even be a longer, 10-year plan. May be important to create a timeline for follow-ups/check-ins (annual, every two years), as the priority strategies might change over time, depending on who is still engaged, etc.
17	UPSTREAM, Clean Water Action/Fund, 7th Generation Advisors	In light of the level of effort it takes to develop a state strategy (for steering committee members and participants in a stakeholder process), and the time it takes to implement many of the actions, a rewrite every five-years seems overly ambitious. Instead, we suggest that the publication of the strategy be accompanied by process wherein the state commits to do annual or bi-annual evaluations to determine how much progress is being made on the identified actions, and to determine where more resources, effort, and focus are needed. This process should be discussed at the upcoming workshop.
18	NOAA Channel Islands National Marine Sanctuary	5-year timeline seems appropriate, but check-in timelines should be considered (every 1 year, 2.5 years, option to include longer-term, 10 year goals at the end of Strategy document). Should there be an option/disclaimer that new actions can be added as an amendment after some work has been done (e.g., 2.5 yrs.)?
19	SFEI, SCCWRP	Five years is an appropriate time scale, but there should be opportunities to revisit the document sooner if new concerns arise before the five-year mark (research related to plastics/microplastics is developing rapidly, draft should be updated at least in 5 years' time to reflect new developments).

**3. What are your thoughts on the three ocean litter priority strategies?**

- a. Do they reflect your understanding of what the state's ocean litter priorities are/should be?
- b. If not, what do you think the top priorities should be?
- c. What ocean-based litter strategies do you think should be included as a priority strategy?

#	Commenting Organization	Summary
1	San Francisco State University	Okay with priority strategies as they are (although was unsure whether #1 applied to public institutions only), and specified that an ocean-based priority strategy should focus on 1) improving gear retrieval methods to simplify retrieval in the future (GPS-tagging of nets, gear), 2) increasing retrieval/cleanup (esp. large ghost nets).
2	Ecoconsult	Priority #1 – Why only expanded polystyrene? Why not all polystyrene? <ul style="list-style-type: none"> <li>• As the #1 littered item, should cigarette butts be a priority item? No one really knows what to do about</li> </ul>

		<p>it (and in the Draft, it was only mentioned once for an education campaign), but I think we should be pressed to keep thinking about it.</p> <p>Also, there is a lot of mention of derelict gear prevention and recovery, yet it's not a priority. I think it should be added as one.</p>
3	CSU Channel Islands	<p>Agreed with priority strategies, but to #1 added that there needs to be a parallel waste management policy to reduce the entry of biodegradable/alternative items into the environment - identify which consumer and retailer behaviors lead to littering in the first place, and modify these behaviors (behavior change/waste management change to get source reduction).</p> <p>Priority strategy 2 is likely to be highly influential, given the State's purchasing power. This approach may also give opportunities to develop new policy and legislative approaches that have been tested at relatively large institutional scales.</p> <p>Priority strategy 3 is deserving of priority status given the growing understanding of the ubiquity of this form of plastic litter, the lack of proven strategies for source identification/reduction and the infeasibility of recovering microplastics once they reach the marine environment.</p>
4	California Lost Fishing Gear Recovery Project & UC Davis Wildlife Health Center	<p>Priority strategies - the "if" in #1 gives us an easy out - could be restated as "Prohibit single use...AND develop non-damaging alternatives"; is #2 more of a meaningful step/strategy toward achieving #1? Use of "Prohibit" in #1 and "Require the phase-out" in #2 may be contributing to this.</p>
5	American Chemistry Council	<p>The seminal paper in 2015 by Dr. Jambeck referenced in the Strategy, along with the more recent 2017 paper by Lebreton et al., identified the lack of waste management infrastructure and leakage of plastic from poor waste management systems as the leading source of marine debris. The Strategy should focus on closing leakage points for waste into the ocean.</p> <p>Numerous litter studies and work by organizations such as Keep America Beautiful, have demonstrated the benefit of reducing litter through education and advocacy campaigns, as well as improving public trash and recycling infrastructure.</p> <p>Recycling of polyethylene bags and film, such as bread bags, dry cleaning bags, and overwraps is another priority area the OPC should consider.</p> <p>Chemical recycling of plastics has also advanced, with companies such as Agilyx developing a Polystyrene-to-Styrene Monomer Technology that enables recycling of expanded polystyrene to styrene monomer, which can then be used by plastic resin producers to produce polystyrene from recycled feedstock. These types of innovations in traditional and chemical recycling enable greater reductions in greenhouse gas impacts and diversion of these formerly hard to recycle plastics.</p>

6	California Chamber of Commerce	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
7	CalRecycle	<p>Priority #1: Product bans will be challenging to achieve at a statewide level and will likely solicit broad and considerable opposition from manufacturers, distributors, retailers/restaurants, and associations representing the impacted industries.</p> <p>It will be critical to determine how a 'less damaging alternative' would be identified, and who would have responsibility to make that assessment.</p> <p>Priority #2: CalRecycle would like to emphasize our support for waste reduction and the utilization of reusable products and packaging.</p> <p>Priority #3: We recommend adding microfibers to the body of research.</p>
8	American Institute for Packaging and the Environment (AMERIPEN)	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
9	California Association of Sanitation Agencies (CASA), Bay Area Clean Water Agencies (BACWA), Southern California Alliance of Publicly Owned Treatment Works (SCAP)	<p>Most interested in priority #3 and objective #4.</p> <p>a) The Associations support prioritization of source control, product stewardship, and replacing use of plastic in products with alternatives when available (Priorities 1 and 2), as these are the best means to reduce inputs of microplastics and macroplastics to the water environment. While local efforts may be appropriate in some instances, we believe that source control of plastic products will be most effective at the federal or state level.</p> <p>b) In addition to methods standardization and collaborations on strategies mentioned above, the Associations would like the OPC to consider adding a priority area to explore the potential for mitigation of macroplastics already in the environment.</p> <p>c) We support prioritizing the ocean-based litter strategies under Objective 5.</p>
10	CA Restaurant Association	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
11	California Sea Grant	Recommended linking the 3 priority strategies to the Objectives that they address/fall under (it's unclear how they fit into the framework at the outset).
12	Heal the Bay, California Coastkeepers Alliance, Californians Against Waste, and Seventh Generation Advisors	<p>We recommend reframing the priorities slightly to include extended producer responsibility ("EPR") as one of the top three priorities. The updated Strategy should continue to consider EPR program adoption as a top Priority, especially since this Action is still "in progress" rather than "complete."</p> <p>Additionally, we recommend that prohibition of single-use products that have a more sustainable alternative should not be limited to public institutions.</p>
13	NOAA Marine Debris Program	The three priorities were a bit confusing - it wasn't clear why those 3 were elevated when there aren't that many Objectives/Strategies to begin with, perhaps there should be more justification for the priority strategies, and

		perhaps they should be highlighted better in the table.
14	UPSTREAM, Clean Water Action/Fund, 7th Generation Advisors	<p>The priorities provided in the draft document have not provided an adequate justification for making decisions about what are the priority actions and products. For example, why is Priority #1 to ban straws, stirrers, EPS and balloons?</p> <p>We disagree with calling out straws, stirrers, EPS separately as they are all part of the single use food and beverage packaging problem and feel it's strange to prioritize balloons as they aren't on the top 10 of CCD data and it's unclear to us that they are more of an entanglement or ingestion problem than all the other plastics in the marine environment.</p> <p>Priority #2 should be to eliminate cigarette butts by imposing a ban on cigarette filters for cigarettes sold in California.</p>
15	NOAA Channel Islands National Marine Sanctuary	<p>Agree with the three litter strategy priorities.</p> <p>The actions listed are very comprehensive, but maybe there could be a disclaimer that there's flexibility for novel ideas to be added to an amendments document part way through the 5-year time frame.</p>
16	SFEI, SCCWRP	Support the 3 priority strategies, but suggest that #3 be broadened to encompass key sources (vehicle tires) and pathways (urban runoff) that are generally suggested to be at least as important as wastewater.
17	Environmental Protection Agency, Region 9	Objective 1 and 2, accurately reflect EPA's position that the best approach to mitigate trash, including marine litter, is through source reduction, or waste prevention, (i.e. "practices that reduce the amount of materials entering the waste stream, including changes in the design, manufacture, purchase or use of materials" (EPA, 2016)). We also support objective 3 and 4 and provide grants and collaborative efforts to educate the public and promote behavior change that prevents land-based sources of trash, in combination with other tools, such as provisions of adequate infrastructure and services, regulation and enforcement, and research and development.

**4. Are there any actions that were not included in the draft Strategy that you would like to see incorporated?**

#	Commenting Organization	Summary
1	San Francisco State University	Potential missing action item for ocean-based strategies: identify plausible routes for recycling marine debris. Curious about whether lost gear (ghost nets) could be visible with aerial imagery. Could split Objective 5 into 3 parts (1. Reduce at source, 2. Manage/control, 3. Cleanup). Suggested that analysis to ensure that implementing bans/utilizing alternative materials is more beneficial than continuing to use the original material/product potentially be included as a research priority/item.
2	CSU Channel Islands	Gaps in Action Items = 1) agricultural practices as a source of plastic pollution: an extensive use of plastic materials in irrigation and field cover could contribute to plastics in runoff, b) use of

		recycled water and post-treatment sludge could contribute to microplastic concentrations, c) could reduce/sub plastic packaging during harvest and packaging of agricultural product. 2) lack in understanding of sources and transport of airborne microplastics - should monitor whether the policies implemented here may address airborne microplastics.
3	American Chemistry Council	The draft Strategy should focus on increasing access to recycling infrastructure, especially for on-the-go recycling in public spaces, as well as focus on education and outreach, specifically targeted at communities with litter hot spots.
4	California Chamber of Commerce	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
5	CalRecycle	Additional details concerning how Action Items may be achieved, cost considerations, and background on previous attempts to implement them would be helpful.
6	American Institute for Packaging and the Environment (AMERIPEN)	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
7	California Association of Sanitation Agencies (CASA), Bay Area Clean Water Agencies (BACWA), Southern California Alliance of Publicly Owned Treatment Works (SCAP)	Reworked Action Items in Objective 4 to be more specific (added a few Actions to each Strategy): 4.1.1 Assess plastic and microplastic pathways (including sources and sinks), 4.1.2 Conduct a survey of microplastics in a range of ecosystems, encompassing freshwater, marine and estuarine waters in areas of known or likely high concentrations of microplastics. 4.1.3. Assess relative contributions of microplastic sources to ambient conditions, 4.2.1 Form a panel of recognized microplastics experts to work with OPC to develop research plan in 4.2.2, 4.2.2 Develop a strategic research plan to address critical knowledge gaps regarding microplastics within the next 5 years., 4.2.3 Develop standardized methods for sampling, detecting, and characterizing microplastics, 4.3.1. Develop step-wise, comprehensive wastewater research plan based on input from a newly formed consortium of microplastics expert scientists. 4.4.1 Determine whether ambient concentrations of microplastics are likely to have an environmental impact. 4.4.2 Determine concentrations of microplastics which have an effect for a range of marine and freshwater and sediment species., 4.5.3 Determine whether source controls such as product reformulation can reduce microplastic levels in wastewater effluent
8	CA Restaurant Association	Supports the American Chemistry Council's (ACC) Plastics Division's comments.
9	California Sea Grant	Potential new Action Items: New Action 1.2.4: Initiate/Explore a deposit/refund or producer buy-back program (cost gets added to product) to help with packaging take-back; New Action similar to 1.1.2: Toolkit for local industry, including an incentive program for finding innovative solutions and getting market rewards?; New Action 3.1.3: Provide toolkits for nonprofit organizations (environmental, education, church, community groups) to set community goals, educate constituents, and collect information on barriers/successes; New Action 3.4.2: Work with social programs focused on the homeless and local municipalities to incorporate trash/environmental pollution into their strategies for improving homeless health, wellbeing and safety;
10	NOAA Marine Debris Program	Potential gaps in Action Items: include more education-based Actions, a removal Action focused on consumer debris or ADVs (or some other debris other than fishing gear)?
11	UPSTREAM, Clean Water Action/Fund, 7th	Public pressure campaigns to change the practices of bad actor companies and leading fast food

	Generation Advisors	companies. This could go under education.
12	SFEI, SCCWRP	New Action Items [provided justification for including the following]: 1) Research urban runoff to identify and quantify microplastics derived from sources including car tires and paints, 2) Develop a toolkit of environmental and financial metrics to evaluate the efficacy and impacts of bans and policies on single-use plastic items, including metrics to quantify reductions in trash and litter generated and impacts, if any, to businesses [a mix of a few of the Action Items in the Draft and Appendix B] [also provided examples of specific questions to ask/metrics to include], 3) Assess bio-based, biodegradable plastic alternatives to determine whether they break down under real-world conditions; assess regional needs and services available for composting/disposal [will help ensure compostable alternatives to plastics actually reduce litter, and avoid regrettable substitutions].