SUMMARIZED PUBLIC COMMENTS ON THE SECOND DRAFT OF THE CALIFORNIA OCEAN LITTER PREVENTION STRATEGY: ADDRESSING MARINE DEBRIS FROM SOURCE TO SEA

The public comment period for the second draft of the *California Ocean Litter Prevention Strategy* was open from January 22 to February 23, 2018. Below are summaries of the 26 public comment letters received during this period, arranged alphabetically by organization name. Please note that the Proposed Final Draft Strategy has undergone reorganization, and some Action Items have been added, so the page numbers and Action Item numbers referenced here may not line up with those in the Proposed Final Draft Strategy. This summary document was finalized April 13, 2018.

Commenting Organization(s)	Summary
5 Gyres Institute; Californians Against Waste; Clean Water Action & Clean Water Fund; Surfrider Foundation; Seventh Generation Advisors; Upstream Policy; Zero	 Recommended that the Executive Summary include a summary of the Strategy's Goals and Objectives, and that it acknowledge that the Strategy identifies cigarette butts and food and beverage packaging as the most prevalent land-based ocean litter items based on Coastal Cleanup Day data (and therefore prioritizes actions that prevent or reduce these items).
Waste USA & The Albatross Coalition	 Recommended that the Executive Summary be placed after the List of Acronyms and the Glossary of Commonly Used Terms in the Strategy document.
	• Requested that "source reduction" and "waste prevention" be defined in the Glossary of Commonly Used Terms, and commented that the EPA definition used on p. 20 should be further refined as it does not distinguish between recycling or waste diversion and source reduction; instead, suggested using an adapted version of the definition of source reduction found in Public Resources Code Section 40196, in order to convey that source reduction means reducing the amount of waste generated in the first place.
	• Requested that "single use" be defined in the Glossary of Commonly Used Terms and suggested a definition based on input from partners.
	• Suggested splitting the "social impacts" paragraph in the Background section of the document into two paragraphs and focusing the second of the two paragraphs on human health risks of plastic (provided references).
	Recommended replacing the word "Styrofoam" in the document with "expanded polystyrene."
	• Suggested that in discussing the economic costs of litter in California, the Strategy should acknowledge that costs are increasing as municipalities spend more on trash capture and removal to implement the Trash Amendments (suggested language edits).
	• Disagreed with the characterization of the 2008 Strategy Action to "Coordinate an education and outreach campaign" as complete (p. 16), as litter education should be sustained and robust, and the effectiveness of the Thank You Ocean campaign has not been evaluated; suggested alternate language to acknowledge these two points.

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	• Suggested that the Strategy more clearly state (on p. 19-20 and p. 24) that the most common types of ocean litter, as defined by Coastal Cleanup Day data, are cigarette-related litter and food and beverage packaging.
	• Requested that a new Action Item be added to Objective 2.1 to capture brand data during California Coastal Cleanup Day and suggested that the California Coastal Commission implement this Action Item, on its own or in partnership with others.
	• Requested that a new Action Item be added to Objective 4.3 to study the impacts of products marketed as marine degradable, degradable, and compostable on the environment.
	• Suggested that the OPC priorities outlined on p. 24 be revised to reflect that microplastics and microfibers are also land-based ocean litter; accordingly suggested that the first Priority be focused on macro sources of land-based ocean litter (priorities being the most common ocean litter items as defined by Coastal Cleanup Day data), the second Priority be focused on micro sources of land-based ocean litter (priorities being microplastics and microfibers), and the third Priority be focused on ocean-based sources of debris (priorities being fishing and aquaculture gear).
	• UPSTREAM asked to be removed from Action Item 2.2.1 and added to 1.1.4. Surfrider Foundation asked to be removed from Action Items 1.1.5 and 1.1.6, and added to 1.2.3 and 4.4.2 as a Partner Organization. 5 Gyres asked to be added to Action Items 5.1.2 and 5.2.1 as a Partner Organization. Clean Water Action/Clean Water Fund asked to be added to Action Items 3.1.3 and 4.1.4 as a Partner Organization. Californians Against Waste asked to be removed from Action Item 1.1.1 and added to 2.2.1 as a Partner Organization. Action Item sign-ups for Zero Waste USA and The Albatross Coalition are noted in the summary of their individual comment letter.
Algalita	• Volunteered to be a Lead Organization on Action Items 4.1.1, 5.1.2, and 5.1.3.
	• Provided information on some of Algalita's efforts to reduce marine debris.
	Approved of the document's proposed implementation scheme/timeline.
American Chemistry Council (ACC)	Outlined some current efforts the ACC is engaged in to reduce marine debris.
	• Expressed strong support for Stakeholder Goal 3, as well as support for Stakeholder Goals 4 and 5, and the inclusion of a call to assess policy effectiveness in the OPC Priorities (p. 26).
	• Commented that littering behavior is a key source of marine debris, and that focusing on product-specific strategies (such as bans) will lead to litter substitution, rather than litter reduction (provided references).
	• Commented that replacing plastics with alternative materials often results in greater impacts to the environment (provided references).
Bay Area Stormwater Management	• Volunteered to be a Partner Organization on Action Items 1.1.1, 1.1.6, 3.1.1, 3.1.3, 3.2.4, 4.4.1, and 5.2.3.
Agencies Association (BASMAA)	• Expressed support for the Priority Objective under OPC Goal 1, as it is consistent with a "true source control" approach to pollution reduction in which the existence of any potential pollutant is either eliminated or significantly reduced so that it is highly unlikely to come into contact with and pollute stormwater.

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	• Commented that conducting Strategy implementation check-ins every six months is an appropriate place to start, and that at the end of each check-in, stakeholders should decide whether the check-in period should be adjusted.
California Association of Sanitation Agencies (CASA); Bay Area Clean Water Agencies (BACWA); Southern California Alliance of Publicly Owned Treatment Works (SCAP)	 Expressed support for the Draft Strategy. Recommended that national and international resources and knowledge be leveraged as much as possible in creating a comprehensive microplastics research plan, as outlined in OPC Goal #2, Action 2. Recommended that the OPC Priorities section and the Stakeholder section of the document be integrated where possible, as having the two sections separated (especially when there is overlap between them) makes it seem like they will be carried out separately. Clarified how their organizations' names should appear in the Strategy. Requested that a reference be provided for the statement that quantities of microplastics and microfibers are increasing in the environment (p. 24) or that the statement be modified to reflect that microplastics and microfibers are of increasing concern in the marine environment.
California Coastal Commission	• Volunteered to be a Lead Organization on Action Items 6.2.3 and 6.3.3.
California Department of Resources Recycling and Recovery (CalRecycle)	 Suggested that the phrase "single-use carryout bag ban" replace "statewide bag ban" throughout the Strategy document. Suggested that the phrase "single-use food serviceware" replace "single-use foodware" throughout the Strategy document as it is more commonly used. Suggested other small language changes. Suggested that a statement be added to the Comments on Priority Action 1 in the table "Status of Actions in the 2008 OPC Strategy" that clarifies that new legislation is required for CalRecycle to implement a packaging framework.
California Fish and Game Commission (FGC)	• Volunteered to be a Partner Organization on Action Items 6.2.1 and 6.4.5, and a Co-lead Organization on Action Item 6.2.2.
California Lost Fishing Gear Recovery Project at UC Davis; Commercial Fisherman; The Nature Conservancy ¹	 Recommended that "control" be removed from Stakeholder Goal 6 language, as control does not make much sense in a fishing gear context and work on lost fishing gear usually focuses on prevention and cleanup. Commented that Action Item 6.1.1 could be split into two Action Items: 1) work with fishermen to develop strategies to prevent gear loss and 2) share these strategies among the rest of the fishing community; commented that commercial and recreational fishing should both be called out in this Action Item, and that the strategies to engage these communities are often very different; requested that the Action Item focus on gathering knowledge on both gear loss and gear loss prevention (not just prevention); provided suggestions of fishing groups to reach out to in pursuit of this Action Item. Commented that the Dungeness Crab scoping exercise is a good example of Action Item 6.1.2.

¹ These comments were received verbally during an in-person meeting held in early March 2018.

Commenting Organization(s)	Summary
	• Commented that the meaning of "durable" is unclear in Action Item 6.1.3, and questioned the goal of having gear last forever; commented that some fishermen and gear manufacturers are starting to think about tagging gear with GPS and designing parts of gear to be biodegradable so as not to entangle marine animals; suggested that the word "durable" be removed from the Action Item, and that the goal to design gear to be less likely to be lost and less harmful once lost remain the focus of the Action Item; provided suggestions for groups and individuals to reach out to in pursuit of this Action Item, including the Dungeness Crab Working Group.
	• Commented that the aquaculture Action Items in Objective 6.2 seem to take up a lot of space in the Strategy, given that aquaculture debris is a somewhat localized problem, and suggested that perhaps these Action Items could be collapsed into one Action Item that focuses on understanding aquaculture debris in California, what the key outcomes of actions should be, and whether permitting or legislation is the appropriate path forward; commented that debris that might come from deep water offshore aquaculture would be different than that from nearshore shellfish aquaculture; commented that data collected on aquaculture debris could be fed back into the Monterey Bay Aquarium's Seafood Watch program.
	• Suggested that Action Item 6.3.1 be less prescriptive in its focus on developing a centralized database, and instead focus more broadly on improving systems for lost gear data collection and organization.
	• The California Lost Fishing Gear Recovery Project reiterated their interest in Action Item 6.4.1.
	• Suggested that Action Item 6.4.2 could be reworded to mirror 6.4.1 (to research the barriers to removal of derelict vessels); suggested that both recreational and commercial vessels be mentioned in the Action Item language so that not all of the focus of the Action Item is on commercial vessels; provided suggestions of groups to reach out to in pursuit of this Action Item.
	 Recommended that Action Item 6.4.3 be broadened to allow for the development of multiple gear recycling, buyback, and/or return programs on a fishery by fishery basis, and on a recreational and commercial basis (as opposed to the development a single program).
	• Suggested that Action Item 6.4.4 be broadened to allow for the removal of different types of debris (aside from just legacy aquaculture debris).
	• Expressed support for Action Item 6.4.5 and commented that implementation of this Action Item will require outreach to fishermen.
	• In regards to Action Item 6.4.6, commented that maintenance of trash receptacles in ports and harbors is crucial, and is often difficult; suggested groups to reach out to in pursuit of this Action Item.
	• The Nature Conservancy volunteered to be a Partner Organization for Action Items 6.1.2, 6.3.1, 6.4.1, and 6.4.3. The California Lost Fishing Gear Recovery Project asked to be removed from Action Item 6.4.4.
California Manufacturers & Technology Association; Ameripen; CalChamber; California Building	• Expressed support for Stakeholder Goal 3 and highlighted it as an example of how California businesses and state regulatory agencies can collaborate to develop effective policy to address marine debris.

Commenting Organization(s)	Summary
Industry Association; California Business Properties Association; California Restaurant Association;	• Expressed support for Stakeholder Goal 4 and the conduct of research on marine debris, but commented that the funding source for the proposed research projects is unclear, and that their organizations would oppose an attempt to leverage new or increased fees on businesses to fund these projects.
California Retailers Association; Household & Commercial Products Association; Los Angeles Area Chamber of Commerce; Plastics Industry Association; The Association of Plastics Recyclers;	• Commented that the continued expansion of California's recycling infrastructure is a priority for their organizations, however their organizations believe an incentive-based approach, rather than a mandate-based approach, will more effectively reduce litter and increase recycling; as a result, the organizations expressed opposition to Stakeholder Goals 1 and 2, unless significant changes are made to the language of these Goals to refocus them on incentives instead of mandates.
Valley Industry and Commerce Association; Western Plastics Association	• Commented that while the Strategy is not meant to be a consensus document, it favors input from non- governmental advocacy groups and does not provide an equal opportunity for industry to shape the process to reduce marine debris in California over the next 6 years. Suggested that one way to address this imbalance would be to revise Stakeholder Goals 1 and 2 to be similar in approach to Goal 6, which focuses more on collaborating with industry to understand and minimize the problem of marine debris.
	Additionally, expressed support for the comments submitted by the ACC.
California Product Stewardship Council (CPSC)	• Expressed support for the data-driven Goals, Objectives, and Action Items in the Strategy, as well as for the prioritization of source reduction and prevention in the hierarchy of efforts to address ocean litter.
	• Requested that there be more detailed timeframes associated with each Goal.
	• Commented that 6 month check-ins on implementation progress will be useful, but suggested that in-person meetings occur more frequently than every two years (perhaps every year).
	• Volunteered to be a Lead Organization on Action Items 1.1.1, 1.1.2, 1.1.4, 2.1.3, and 2.2.3 (indicated interest in being a Lead on Action Items 1.1.1, 1.1.2, and 1.1.4 particularly in regards to policies or legislation that involve producer responsibility). Volunteered to be a Partner Organization on Action Items 1.1.5, 1.1.6, 2.1.1, 2.1.2, 3.1.3, 3.2.3, 4.2.2, 4.4.3, 5.2.2, and 5.2.3. Outlined some of the work CPSC has done related to these Action Items.
	• Expressed support for the Action Items in Objective 6.4, and commented that ocean cleanup can still be tied to source reduction through the efforts of companies like Aquafil that recycle ocean litter into products; supported collaborations between Aquafil and the California Lost Fishing Gear Recovery Project at UC Davis.
California State Parks Division of Boating & Waterways and	• Asked why the Strategy did not include more emphasis on the fishing line recycling that is being conducted throughout the state.
California Coastal Commission	• Commented that holding Strategy implementation check-ins every 6 months to a year would be feasible and ideal.
Channel Islands National Marine Sanctuary	• Commented that the timelines proposed for the OPC Priorities and the plan to check in on progress made on Strategy implementation every 6 months are appropriate.
	• Suggested that a statement be added to p. 12 about the amount of marine debris removed from Channel Islands shorelines in 2017.

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	• Suggested that OPC Goal 3, Action 2 be rewritten to sound more like OPC Goal 3, Action 3, with a timeframe and a list of partners.
	• Requested that there be more explanation of how a fishery-funded gear retrieval program might work (mentioned in OPC Goal 3, Action 4).
	• Suggested that perhaps CDFW should be listed as a Partner Organization for Action Items 6.1.1 and/or 6.1.2.
	• Asked to be removed from Action Item 6.2.2.
Cigarette Butt Pollution Project	• Expressed support for the recognition of cigarette butts as the most commonly found ocean litter item on the California coast.
	• Supported the inclusion of OPC Goal 1, policy implementation Action 6 (to convene a working group to evaluate a ban on cigarette filters in California) in the Strategy.
	• Outlined plans to submit proposals with colleagues at SDSU to 1) establish a policy research center focused on tobacco product waste and the environmental impacts of tobacco, and 2) conduct research on the impacts of cigarette filters on human health.
	• Volunteered to serve on the working group described in OPC Goal 1, policy implementation Action 6, and to lead the working group either through the Cigarette Butt Pollution Project, or through the policy research center if their proposal is funded.
City of Oakland	• Volunteered to be a Lead Organization for Action Item 3.1.2.
	• Outlined the City of Oakland's accomplishments in creating its Adopt a Storm Drain program and the City's plans for collaborating with other municipalities to expand Adopt a Storm Drain programs.
City of Watsonville	• Requested that there be coordination between the Trash Amendments process and the Ocean Litter Strategy process; in particular, requested that timelines and reporting required by the Trash Amendments align with the Goals of the Strategy and Strategy implementation, so that municipalities are not faced with multiple reporting deadlines.
	• Expressed support for the addition of language about cigarette butts and filters as items of concern.
	• Requested that language about agricultural plastics be added to the Strategy, including research questions about how agricultural plastics contribute to ocean litter and pollute the watershed (via microplastics, phthalates).
	• Suggested that working with industries that use a large amount of plastic (e.g., the agriculture industry) to reduce their use of plastics would address many of the Strategy's Goals.
CSU Council on Ocean Affairs, Science & Technology (COAST)	• IGISc at SFSU requested to be removed from Action Item 1.1.8, but offered to help connect the Action Item's Lead Organizations with the SFSU Office of Sustainability.
	• Commented that the differences between an OPC Goal, a Stakeholder Goal, and an OPC Priority Objective should be clarified in the document.

Commenting Organization(s)	Summary
	• One CSU faculty member commented that 6 month progress check-ins sound reasonable, but wanted clarification on what actions would be required for these check-ins.
Department of Environmental Sciences, UC Riverside	• Expressed support for the use of item count percentages collected during citizen science cleanups to inform policy.
	• Expressed strong support for the Strategy's emphasis on source reduction and the advancement of producer responsibility through the Action Items included in the Strategy; commented that in the future, more aggressive means of achieving source reduction may be necessary (e.g., penalizing companies who contribute disproportionately to the litter load due to poor product design).
	• Cautioned against using the statistic that 80% of marine debris is land-based, as it is not well substantiated (provided reference); commented that more flux-based research on human debris is needed.
	• Commented that the timeline associated with OPC Goal 2 implies that method development must come before substantive questions about microplastic dynamics in the environment can be addressed; strongly disagreed with this sentiment, and requested that the language of OPC Goal 2 be changed to reflect the mutually beneficial approach of developing methods while in pursuit of process-oriented questions; commented that such process-oriented studies should begin as soon as possible.
	• Requested that the language of Action Item 4.1.4 be adjusted to include land-based volumes, fluxes, weights, and other units of importance beyond material, item, source, and brand.
	• Commented that implementing Action Item 4.4.1 will require partnerships with researchers in the social sciences, public policy, and economics, who would be well-suited to be Leads.
	• Volunteered to be a Lead Organization on Action Item 4.1.2 (were previously listed as a Partner).
	• Asked to be removed from Action Items 4.2.2 and 4.2.3.
	Clarified how their group's name should appear in the Strategy.
Eco-Econ Future; Santa Barbara Mariculture; Coast Seafoods Company; PharmerSea; Sunken Seaweed	• Requested that the statement that fishing and aquaculture gear, along with other ocean-based litter, make up 20% of the litter found in the ocean (p. 24) be revised to reflect data included in the 2007 National Marine Debris Monitoring Program (NMDMP) report and 1990-2016 California Coastal Cleanup Day data (provided references) to 1) clarify the relative contributions of fishing gear, aquaculture gear, and other ocean-based sources to marine debris, 2) avoid overstating the aquaculture industry's contribution to marine debris, and 3) include information specific to the West Coast.
	• Expressed support for Action Item 6.3.2, as it will allow managers to determine the source of lost aquaculture gear.
	• Pointed to possible data discrepancy in the 2007 NMDMP report, and stated that, based on tables in the report, 12.2% of ocean litter found on the West Coast is ocean-based (rather than the 11.3% which is cited in the text of the report).
	• Commented that it is often unclear in the NMDMP report how litter items are categorized as ocean-based or land- based, and 1) requested that OPC make specific references from the report available to aid the organizations'

Commenting Organization(s)	Summary
	understanding of this categorization scheme, and 2) suggested that the State reevaluate how items are categorized to ensure accurate understanding of debris sources.
	• Commented that because the NMDMP data are over ten years old, annual Coastal Cleanup Day data may provide more accurate information on the makeup of marine debris on California's coasts; however, some of the data categories on fishing gear are not available after 2012; requested that data collection on fishing gear continue on Coastal Cleanup Day, to provide accurate information on the amount of fishing gear-related debris found in California, and to allow for future analysis of the effectiveness of actions taken to reduce fishing and aquaculture debris.
Ecoconsult	 Suggested that research on the presence of microfibers in tap water and commercial salt could be added to the Background section of the Strategy (provided references).
	• Requested that an Action to support policy that addresses microplastics/microfibers be added to OPC Goal 2.
	• Commented that OPC Goal 2, Action 2d has already been partially addressed, as research has shown that textiles are a major source of microplastics (provided references).
	• Recommended that OPC Goal 3, Action 3 focus on fishing gear as well as aquaculture gear.
	• Requested that a new Objective be added to Stakeholder Goal 6 to educate consumers about the sources of ocean litter (particularly about how seafood is caught, and how derelict gear contributes to plastic pollution) to drive behavior change in purchasing.
Ghost Fishing	• Outlined some of the efforts Ghost Fishing has undertaken to clean up lost nets and reduce ghost fishing in California (provided a timeline of the organization's activities in California since 2013).
	• Outlined the organization's interest in pursuing legislation in California that would require fishermen to report their lost nets in a timely manner; suggested that passing legislation that requires and incentivizes fishermen to report lost nets be added to the OPC priorities.
	• Suggested that a fishing net recycling program, similar to the program in Santiago, Chile with the Bureo skateboard company, be implemented in California.
	• Commented that conducting check-ins on Strategy implementation every 6 months would be appropriate.
Hog Island Oyster Company	Outlined some current efforts Hog Island Oyster Co. is making to reduce marine debris.
	• Commented that the OPC Priorities timelines seem feasible (in regards to aquaculture-related and other Action Items).
	• Requested that language used to describe OPC Goal #3 (p. 24) be clarified by providing further detail about: 1) the statistic that 20% of marine debris is ocean-based (whether this statistic comes from statewide, national, or global studies), and 2) the extent of the aquaculture industry's contribution to ocean-based litter, so as to avoid making generalizations about the industry's marine debris impact.

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	• Commented that conducting check-ins every 6 months is a good place to start, and that holding in-person check-ins in different parts of the state may allow for more industry participation.
Legislative Task Force of the California Chapters of the Solid Waste Association of North America (SWANA)	• Expressed support for the Strategy's emphasis on source reduction and prevention, and the inclusion of EPR as a source reduction Objective in the Strategy. Asked that the Strategy emphasize that the goal of EPR is to prevent the production of packaging and products that become ocean litter, and to hold producers responsible for financing the cleanup of trash that ends up in waterways.
	• Expressed support for the Priority Objective under OPC Goal 1, and specifically for Action 1 under "Research and Funding," which calls for assessments of policy effectiveness.
	• Expressed support for Action Items under Stakeholder Goals 1 and 2 and Objective 5.2.
	• Recommended that an Action to conduct a sustained, statewide education campaign about ocean litter to drive consumer behavior change be added under OPC Goal 1, as well as under the Stakeholder Goals and Objectives; suggested that State-led public education campaigns about energy and water conservation may serve as examples for such a campaign.
Richard Watson & Associates, Inc.	• Expressed support for the Strategy's prioritization of source reduction and prevention, but commented that due to the importance of source reduction, a shorter timeframe for the Strategy would be helpful.
	• In particular, expressed support for Objective 2.1 and the pursuit of EPR as a mechanism to reduce litter and allow producers to help fund litter reduction.
	• Expressed support for Action Item 3.1.1, but commented that municipalities are constricted in their ability to raise additional funds to implement stormwater trash programs, and it would be helpful to partner with private sources for this purpose.
	• Expressed support for Action Item 3.1.3.
	• Recommended that OPC and NOAA reach out more to the stormwater quality community, including the California Stormwater Quality Association (CASQA), in implementing Objective 4.5.
Southwest Fisheries Science Center – Environmental Research Division	• Requested that OPC Goal 2, Action 1 be amended to include research to investigate the extent and effects of microplastic in zooplankton, fish larvae, and filter-feeding organisms including large fish and cetaceans, to understand potential impacts to entire ecosystems. Commented that this research is important not only because of the intrinsic value of ecosystems, but because healthy zooplankton and fish larvae populations support commercial fisheries and large filter-feeding organisms (e.g., cetaceans) are ecosystem engineers and ecotourism drivers (provided references).
The Albatross Coalition; Zero Waste USA	 Volunteered to be Lead Organizations on Action Items 1.1.1, 1.1.2, 1.1.4, 1.2.3, 2.2.1, 2.2.2, 2.2.3, 4.5.1, and 5.1.3. Specified how they would like their organizations' names to appear in the Strategy.

Commenting Organization(s)	Summary
	• Requested that an Action Item geared towards supporting World Cleanup Day September 2018 be added to the Strategy.
	Approved of the document's proposed implementation scheme.
	• Encouraged brand identification during cleanups and trash sorts, participation in World Cleanup Day, and networking with other regional, national, and global groups that work on ocean litter.