



SWANA Legislative Task Force Meeting Minutes

Thursday, February 22, 2018 (In-Person Meeting)

1415 L Street, Suite 1000, Sacramento, CA 95814

10 a.m. – 2 p.m.

1. Administrative Items

- a. Roll Call, Introductions – *Meeting was called to order at 10:10. See attached roster.*
- b. Approval of February Minutes – *A motion was made, seconded and passed to approve the minutes.*
- c. Approval of February Treasurer's Report – *The February treasurer's report will be presented at the next meeting (no full month to report).*
- d. Western Regional Symposium - *Glenn reported that the panel of participants is confirmed: Frank Caponi (LA County), Hank Brady (CalRecycle) and Kelly Astor (ASTOR & KINGSLAND, LLP representing waste haulers).*
- e. Debrief of Officers' Meetings with Legislators – *Glenn reported on the visit with legislators (or their staff), stating the officers focused on recent legislation/regulation such as SB 1383 that requires more recycling but no funding for infrastructure, plus a shortage of markets, short compliance timelines, and no provisions for good faith effort. Most were sympathetic to these concerns; some suggested the LTF work to identify what reasonably can be done within the compliance deadlines and the good faith efforts that have been done to date. The officers agreed the visit was effective overall. Melissa shared that Assembly Member Eggman and other legislators are leading efforts to ask for \$100 million. Melissa walked through the highlights of each meeting. See attached itinerary.*
- f. *Frank gave update on SWANA National's advocacy efforts, including regarding lithium ion batteries and a national task force that has recently been established. Frank will share more information on these efforts as it becomes available. Also reminded the group about the upcoming SWANAPalooza and WasteCon conventions and encouraged attendance.*

2. Legislative & Regulatory Review

- a. Begin reviewing all pending legislation and take positions as needed. See attached bill matrix.
- b. *Motions were made and approved for the following LTF positions:*
 - i. *AB 1933 (Maienschein) –Support. This bill would appropriate \$200,000,000 from the fund to the Department of Resources Recycling and Recovery for organic waste recycling infrastructure projects that reduce greenhouse gas emissions and solid waste recycling infrastructure projects that reduce greenhouse gas emissions.*

LEGISLATIVE ADVOCATES

Jason Schmelzer and Melissa Immel

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- ii. AB 2115 (Santiago) – Support. This bill would require the driver of a vehicle overtaking a stopped waste service vehicle, as defined, to pass at a safe distance without interfering with the safe operation of the waste service vehicle, and at a speed not exceeding 15 miles per hour.
- iii. AB 2411 (McCarty) – Support. This bill would require each state agency to ensure that, on and after January 1, 2020, at least 50% of reportable purchases of soil or similar products are compost, as described.
- iv. AB 2921 (Low) – Oppose. This bill would ‘authorize’ polystyrene food service packaging manufacturers and polystyrene resin producers to form or designate a recycling organization, collect fees, and implement projects and programs to further recycling. Since the bill only authorizes, and doesn’t require anything, and a law is not needed for manufacturers to voluntarily implement such programs, a motion was approved to oppose this bill.
- v. SB 1335 (Allen) – Support. This bill would prohibit a food service facility in a state agency or large state facility from dispensing prepared food to a customer using disposable food service packaging unless the type of disposable food service packaging is accepted for recovery by the recycling or composting program serving the state agency or large state facility and is recovered for recycling or composting at a rate of 75% or more.

3. Guest Speaker

- a. Representative from CalRecycle. CalRecycle was unable to send a representative to speak to the LTF.

4. Legislative & Regulatory Review

- a. Continue reviewing all pending legislation and take positions as needed
 - i. Lithium Ion Batteries – Continued from February 1, 2018 meeting
 - 1. Chuck shared that the Green Chemistry Initiative’s comment deadline for priority products is March 9. He recommended the LTF comment that lead acid batteries are not really an industry problem (already majority are recycled), but solid waste industry is facing challenges specifically with alternative batteries, such as LI, as we’ve seen with recent facility fires. Chuck offered to draft comments for LTF review; group agreed.
- b. Update on status of key regulatory processes
 - i. AB 901 Regulations
 - 1. Larry reported that the formal regulation is out for a 45 day comment period with comments due on March 14, 2018. It has a food waste definition; unclear how will reconcile with SB 1383’s definition which is different. Has scale exemption and provision for ‘reasonable effort’. Still has individual haulers subject to reporting, which would require individual people register as a hauler. Also if have multiple facilities, owner will have to register multiple times. Still includes enforcement and penalties “on any person.” Recommends LTF comment on this. LTF agreed to draft a letter reiterating our concerns. Larry will send list of issues to Melissa.
 - ii. SB 1383 Regulations
 - 1. SWIG Meeting – Sharon shared that the SWIG (informal solid waste industry group) prepared and submitted two letters recently on SB 1383, one commenting on general policy issues and the other with detailed comments on S 1383. The group met yesterday with CalRecycle policy staff and other industry representatives (CRRC South, RCRC, League, CSAC, WM, Waste Connections, Republic, and others) to discuss the issues and concerns. Sharon and Larry shared the following:
 - a. Update from Hank Brady - CalRecycle: CalRecycle moved next workshop to April 6 with the revised regulation to be released just before. There will be a short public comment period. Hank shared the regs should be at about 90% by then,

so this is the time for the LTF to comment. Will have a few additional comment periods before the regs are finalized. Also mentioned that CalRecycle will be developing guidance, which the LTF will want to watch closely.

- b. *Definitions: SWIG suggested they use AB 1826 definition. CalRecycle proposed a hybrid approach, which includes other material types, acknowledging there will be issues with some, e.g. fibers that may not be entirely (or at all) organic. Will revise the definition, but it will generally cover anything organic, although CalRecycle indicated that they may not enforce it, or will allow phased implementation. The SWIG group had concerns with CalRecycle including something they know they will not enforce.*
- c. *Containers: Split containers will be allowed, not required. Color and labels – will have more flexibility, will allow phase in.*
- d. *Contamination: CalRecycle indicated they will move away from 10%, toward something like looking for the “presence” of contaminants.*
- e. *Rural agencies: will get delayed implementation and additional flexibility. Mary Pitto of RCRC will try to get inclusion of rural “areas” within otherwise urban populations.*
- f. *Haulers: A franchise will constitute approval of hauler.*
- g. *Mixed Waste Processing: CalRecycle still deciding approach; may push out dates. May not have a recovery standard, but will require robust outreach regarding contamination and a facility must receive materials even if high contamination.*
- h. *Transfer Facilities: They are not addressed in the regulation and CalRecycle acknowledges they need to be, specifying that they are not required to process, acknowledging that some facilities just transfer with no processing.*
- i. *Fines: didn’t discuss at this meeting.*
- j. *C&D: Instead of saying all beneficial reuse is disposal, it will depend on material and how used. Needs to perform a function.*
- k. *Enforcement: There may be “substantial effort” review. CalRecycle discussed options such as Notices of Violation, Compliance Orders, etc. and may consider “factors outside control” but the time extensions offered were quite short. “Lack of will to raise rates” is not considered by CalRecycle to be an issue beyond an agency’s control. LTF indicated group should comment on the potential for Prop 218 protests. CalRecycle didn’t sound very sympathetic to issues such as lack of infrastructure, markets, China policy, etc. that were raised.*
- l. *Facilities and long term intermediate cover: CalRecycle willing to explore options. LTF asked if no surface emissions, why need cover?*
- m. *Land application: CalRecycle sympathetic for GW and biosolids, consulting with CARB, as long as meets standards will be non-disposal.*
- n. *Reporting: This was not discussed much. CalRecycle will build on AB 901 requirements, and confirmed there won’t be two different reporting systems.*
- o. *Next steps: Glenn suggested a subgroup to develop comments and continue to interact with SWIG: The sub-committee will be chaired by Doug and include Larry, Sharon, Herb, Frank, Brian, Mike, and Curtis. The sub-committee will hold a teleconference on April 3rd just after the next draft of the regulations come out.*

iii. Ocean Protection Council's Draft Litter Prevention Strategy

1. *Melissa included the draft strategy in the agenda. Sharon explained the revised strategy updates the Council's 2008 strategy and focuses on litter reduction, promoting source reduction, prevention, and producer responsibility. Sharon drafted a comment letter (Melissa emailed to the group also) that supports their approach. Since the Council's objectives align with the LTF's, a motion was made, seconded and approved to submit the letter.*

c. Governor's 2018-19 State Budget Proposal

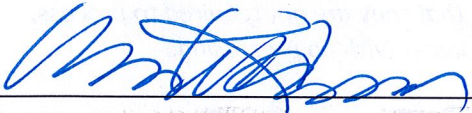
i. Greenhouse Gas Reduction Fund

5. Lunch

6. **Additional Legislative and Regulatory Review** - *No additional items discussed.*

7. **Complete Audit of 2017 Treasurer Reports** - *Chris Hanson, Mike Mohajer, and Curtis Larkin (one member from each chapter) conducted the audit, reviewing the 2017 treasurer's reports, records and bank statements. The auditors found no discrepancies. See attached report.*

Respectfully:



Christina Hanson, Secretary

4/5/18

Date

Attachments

- Monthly Call Agenda
- Attendance Roster
- Advocacy Itinerary
- Bill Matrix
- Ocean Protection Council's Draft Litter Prevention Strategy and Comment Letter
- Financial Audit Report



SWANA Legislative Task Force Meeting Agenda

Thursday, February 22, 2018

10 a.m. – 2 p.m.

Dial: 1-800-867-2581 / Access Code: 1006105

- 1. Administrative Items (10:00 – 10:30 a.m.)**
 - a. Roll Call, Introductions
 - b. Approval of February Minutes
 - c. Approval of February Treasurer's Report
 - d. Western Regional Symposium
 - e. Debrief of Officers' Meetings with Legislators
- 2. Guest Speaker (10:30 – 11:00 a.m.)**
 - a. Representative from CalRecycle
- 3. Legislative & Regulatory Review (11:00 a.m. – noon)**
 - a. Begin reviewing all pending legislation and take positions as needed
 - i. Lithium Ion Batteries – Continued from February 1, 2018 meeting
 - b. Update on status of key regulatory processes
 - i. AB 901 Regulations
 - ii. SB 1383 Regulations
 - iii. Ocean Protection Council's Draft Litter Prevention Strategy
 - c. Governor's 2018-19 State Budget Proposal
 - i. Greenhouse Gas Reduction Fund
- 4. Lunch (noon)**
- 5. Additional Legislative and Regulatory Review (as time permits)**
- 6. Complete Audit of 2017 Treasurer Reports**

LEGISLATIVE ADVOCATES

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SWANA CALIFORNIA CHAPTERS LEGISLATIVE TASK FORCE 2018 MEMBERS
February 22, 2018

VOTING MEMBER/ CHAPTER	NAME		ORGANIZATION	PHONE	EMAIL
VM/Gold Rush	Doug Kobold (T)	P	Sacramento County	916-875-7087	koboldd@SacCounty.net
VM/Gold Rush	Christina Hanson (S)	P	Placer County/Western Placer WMA	530-886-4965	CHanson@placer.ca.gov
VM/Gold Rush	Larry Sweetser	P	Sweetser and Associates/ESJPA	510-703-0898	sweetser@aol.com
VM/Gold Rush	Mark Bowers		City of Sunnyvale	408- 730-7421	mbowers@sunnyvale.ca.gov
VM/Gold Rush	Charles White	P	Consultant	916-761-7882	Chuckwhiteconsulting@gmail.com
ALT/Gold Rush	Joe LaMariana	P	South Bay Waste Management Authority	650-599-1471	jlamariana@rethinkwaste.org
ALT/Gold Rush	Jeff Lindenthal		Monterey Regional Waste Management District	831-264-6390	jlindenthal@mrwmd.org
VM/Founding	Glenn Acosta (C)	P	LA County Sanitation Districts	562-699-7411	gacosta@lacsds.org
VM/Founding	Brian Probolsky	P	Orange County Waste and Recycling	714-834-5513	Brian.Probolsky@ocwr.ocgov.com
VM/Founding	Mike Mohajer	P	Southern California Waste Mgmt. Forum	909-592-1147	mikemohajer@yahoo.com
VM/Founding	Lisa Wood	P	City of San Diego	858-573-1236	lwood@sandiego.gov
VM/Founding	Sharon Green	P	LA County Sanitation Districts	562-699-7411	sgreen@lacsds.org
ALT/Founding	Constance Hornig	P	Law Offices	323-934-4601	hornig@mswesq.com
ALT Founding	Frank Caponi	P	LA County Sanitation Districts	562-699-7411	fcaponi@lacsds.org
VM/Sierra	Nancy Ewert		Kern County	661-862-8953	nancye@co.kern.ca.us
VM/Sierra	Herb Cantu	P	City of Santa Maria	805-925-0951 ext.7212	hcantu@cityofsantamaria.org
VM/Sierra	Eric Zetz (VC)	P	City of Clovis	559-324-2612	ericz@ci.clovis.ca.us
VM/Sierra	Curtis Larkin	P	Fresno County	559-600-4259	clarkin@co.fresno.ca.us
VM/Sierra	Greg Ollivier	P	Caglia Environmental	559-795-6855	grego@cagliarecycling.com
ALT/Sierra	Brooks Stayer		Merced County Regional Waste Management Authority	209-723-4481 Ext. 221	bstayer@mcrwma.org
ALT/Sierra	Amer Hussain		Geosyntec Consultants	559-479-2013	ahussain@geosyntec.com
<i>Lobbyist</i>	<i>Jason Schmelzer</i>	<i>P</i>	<i>Shaw / Yoder/Antwih Inc.</i>	<i>916-446-4656</i>	<i>Jason@shawyoderantwih.com</i>
<i>Lobbyist</i>	<i>Melissa Immel</i>	<i>P</i>	<i>Shaw / Yoder/Antwih Inc.</i>	<i>916-446-4656</i>	<i>melissa@shawyoderantwih.com</i>

Chapter Presidents:

Gold Rush – James Moore

Founding – Brad Gust

Sierra Chapter – Amer Hussain

Quorum: Eight or more voting members, including at least one member from each chapter, must be present to constitute a quorum.

VM= Voting Member

Ch = Chair

VC = Vice Chair

T = Treasurer

S = Secretary

**SWANA LTF Itinerary – Sacramento Visit
Wednesday, February 21, 2018**

TIME	MEETING	LOCATION
8:45 AM	BREAKFAST	The Hyatt ~ Vines Café
10:00 AM	Graciela Castillo-Krings	State Capitol, Governor's Office
10:30 AM	Asm. Muratsuchi	State Capitol, Room 2179
11:00 AM	Asm. Eggman	State Capitol, Room 4117
11:30 AM	Sen. Jeff Stone	State Capitol, Room 4062
12:00 PM	LUNCH	The Empress Tavern
1:30 PM	Asm. Bloom	State Capitol, Room 2003
2:00 PM	Marie Liu (Asm. Rendon)	State Capitol, Room 513
2:30 PM	Mike Peterson (Sen. Lara)	State Capitol, Room 5050
3:00 PM	Joanne Roy (Sen. Wieckowski)	State Capitol, Room 5019
3:30 PM	Rachel Wagoner (Sen. EQ Consultant)	State Capitol, Room 2205
4:00 PM	Edson Perez (Sen. Atkins)	State Capitol, Room 4072
4:30 PM	Priscilla Quiroz (Sen. Skinner)	State Capitol, Room 2059

SWANA 2017-18 Legislation as of Wednesday, February 28, 2018

Bill ID/Topic	Location	Summary	Position
AB 419 Salas D Greenhouse gases: life cycle emissions profiles.	SENATE RLS. 8/21/2017 - From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Com. on RLS.	The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The act authorizes the state board to include the use of market-based compliance mechanisms. Existing law requires all moneys, except for fines and penalties, collected by the state board as part of a market-based compliance mechanism to be deposited in the Greenhouse Gas Reduction Fund. This bill would appropriate \$500,000 from the fund to the state board for the purpose of funding a study by one or more campuses of the University of California to study and assess life cycle emissions profiles. Last Amended on 8/21/2017	
AB 1250 Jones-Sawyer D Counties: contracts for personal services.	SENATE RLS. 9/5/2017 - Read second time and amended. Re-referred to Com. on RLS.	Existing law authorizes the board of supervisors of a county to contract for special services on behalf of various public entities with persons who are specially trained, experienced, expert, and competent to perform the special services, as prescribed. These services include financial, economic, accounting, engineering, legal, and other specified services. This bill would establish specific standards for the use of personal services contracts by counties. The bill would allow a county or county agency to contract for personal services currently or customarily performed by employees, as applicable, when specified conditions are met. Among other things, the bill would require the county to clearly demonstrate that the proposed contract will result in actual overall costs savings to the county and also to show that the contract does not cause the displacement of county workers. The bill would exempt certain types of contracts from its provisions, and would exempt a city and county from its provisions. By placing new duties on local government agencies, the bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws. Last Amended on 9/5/2017	Oppose
AB 1441 Committee on Environmental Safety and Toxic Materials Hazardous waste: transportation: electronic manifests.	SENATE INACTIVE FILE 9/11/2017 - Ordered to inactive file at the request of Senator Wieckowski.	(1) Existing law, which is part of the hazardous waste control law, imposes various manifest requirements for transporting hazardous waste, including, among others, requiring any person generating hazardous waste that is transported, or submitted for transportation, for offsite handling, treatment, storage, disposal, or any combination thereof, to complete a manifest and be subject to transporter registration requirements. A violation of the hazardous waste control law is a crime. This bill would authorize specified manifest requirements for transporting hazardous waste, including requirements to give, provide, send, forward, or return to another person a copy of a manifest, to sign a manifest or manifest certification by hand, or to keep or retain a copy of a manifest, to be satisfied through the use of the United States Environmental Protection Agency electronic manifest (e-Manifest) system, once it comes online. This bill contains other related provisions and other existing laws. Last Amended on 6/15/2017	

Bill ID/Topic	Location	Summary	Position
<p>AB 1663 Garcia, Cristina D</p> <p>Lead-acid batteries.</p>	<p>SENATE DESK 1/29/2018 - Read third time. Passed. Ordered to the Senate. In Senate. Read first time. To Com. on RLS. for assignment.</p>	<p>The Lead-Acid Battery Recycling Act of 2016 prohibits a person from disposing, or attempting to dispose, of a lead-acid battery at a solid waste facility or on or in any land, surface waters, watercourses, or marine waters, but authorizes a person to dispose of a lead-acid battery at certain locations. The act requires a manufacturer battery fee of \$1 on and after April 1, 2017, until March 31, 2022, and \$2 on and after April 1, 2022, to be imposed on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. The act requires the manufacturer battery fee to be paid to the California Department of Tax and Fee Administration and requires dealers and manufacturers of lead-acid batteries to register with the department. The act defines “manufacturer” for these purposes. This bill would authorize a person who manufactures a lead-acid battery and is not subject to the jurisdiction of the state to agree in writing with the importer, as defined, of that lead-acid battery to pay the manufacturer battery fee on behalf of the importer. The bill would exempt an importer who has an agreement of this type with a manufacturer, and who meets other specified requirements, from the requirement to register with the department. The bill would require the department, on or before January 1, 2020, to submit to the Legislature a report that includes, among other things, any regulations or policies adopted by the department for purposes of ensuring compliance with the registration, returns, reporting, payments, audits, refunds, or collection requirements related to the manufacturer battery fee. This bill contains other related provisions and other existing laws. Last Amended on 1/22/2018</p>	<p>Watch</p>
<p>AB 1884 Calderon D</p> <p>Solid waste: single-use plastic straws.</p>	<p>ASSEMBLY NAT. RES. 2/6/2018 - Re-referred to Com. on NAT. RES.</p>	<p>Existing law establishes state programs for the regulation of various solid waste, including, among others, plastic products, tires, and electronics. Existing law also imposes health and sanitation standards for retail food facilities, as defined, including restaurants. This bill would prohibit a food facility, as specified, where food may be consumed on the premises from providing single-use plastic straws to consumers unless requested by the consumer, as specified. Last Amended on 2/5/2018</p>	<p>Watch</p>
<p>AB 1933 Maienschein R</p> <p>Greenhouse Gas Reduction Fund: appropriations: recycling infrastructure projects.</p>	<p>ASSEMBLY NAT. RES. 2/22/2018 - Referred to Com. on NAT. RES.</p>	<p>The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The act requires the state board to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. The act authorizes the state board to include the use of market-based compliance mechanisms in implementing the act. Existing law requires all moneys, except for fines and penalties, collected by the state board as part of a market-based compliance mechanism to be deposited in the Greenhouse Gas Reduction Fund and to be available upon appropriation. This bill would appropriate \$200,000,000 from the fund to the Department of Resources Recycling and Recovery for organic waste recycling infrastructure projects that reduce greenhouse gas emissions and solid waste recycling infrastructure projects that reduce greenhouse gas emissions. This bill contains other existing laws.</p>	<p>Support</p>

Bill ID/Topic	Location	Summary	Position
AB 1945 Garcia, Eduardo D California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund: investment plan.	ASSEMBLY PRINT 1/30/2018 - From printer. May be heard in committee March 1.	The California Global Warming Solutions Act of 2006 establishes the State Air Resources Board as the state agency responsible for monitoring and regulating sources emitting greenhouse gases. The act authorizes the state board to include the use of market-based compliance mechanisms. Existing law requires all moneys, except for fines and penalties, collected by the state board from the auction or sale of allowances as part of a market-based compliance mechanism to be deposited in the Greenhouse Gas Reduction Fund and to be available upon appropriation by the Legislature. Existing law requires the Department of Finance, in consultation with the state board and any other relevant state agency, to develop, as specified, a 3-year investment plan for the moneys deposited in the Greenhouse Gas Reduction Fund. This bill would make a nonsubstantive change to that provision.	
AB 1975 Chu D Nuisance: odors.	ASSEMBLY NAT. RES. 2/8/2018 - Referred to Com. on NAT. RES.	(1)Existing law prohibits, with specified exceptions, the discharge of any air contaminant or other material that causes injury, detriment, nuisance, or annoyance to, or that endangers, the public. Existing law exempts from that prohibition, among other things, all odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals; odors emanating directly from a facility or operation that produces, manufactures, or handles compost, as defined; and odors emanating from operations that compost green material or animal waste products derived from agricultural operations, as specified.This bill would require the Department of Resources Recycling and Recovery, no later than July 1, 2019, to establish the South Bay Interagency Odor Taskforce, with a specified membership, to identify sources of odor emissions and nuisance complaints based on odor emissions received by the Bay Area Air Quality Management District and the City of Milpitas, the City of Fremont, the City of Santa Clara, and the City of San Jose. The bill would require the taskforce, no later than January 1, 2020, to take specified actions, including, among others, developing and implementing a protocol for joint inspections by the air district and the enforcement agency represented on the taskforce. By adding to the duties of local agencies, this bill would impose a state-mandated local program.This bill contains other related provisions and other existing laws.	Concerns
AB 1981 Limón D Organic waste: composting.	ASSEMBLY PRINT 2/1/2018 - From printer. May be heard in committee March 3.	Existing law requires the California Environmental Protection Agency, in coordination with the Department of Resources Recycling and Recovery, the State Water Resources Control Board, the State Air Resources Board, and the Department of Food and Agriculture, to develop and implement policies to aid in diverting organic waste from landfills by promoting the composting of specified organic waste and by promoting the appropriate use of that compost throughout the state. Existing law requires the Secretary for Environmental Protection and the Secretary of Food and Agriculture to ensure proper coordination of agency regulations and goals to implement these policies and related provisions.This bill would correct an erroneous reference to the Secretary for Environmental Protection in the provision relating to ensuring proper coordination of those regulations and goals.	

Bill ID/Topic	Location	Summary	Position
<p>AB 2094 Kalra D</p> <p>Hazardous waste facilities: inspections.</p>	<p>ASSEMBLY E.S. & T.M. 2/22/2018 - Referred to Com. on E.S. & T.M.</p> <p>3/20/2018 1:30 p.m. - State Capitol, Room 444 ASSEMBLY ENVIRONMENTAL SAFETY AND TOXIC MATERIALS, QUIRK, Chair</p>	<p>Existing law requires the Department of Toxic Substances Control, and a local health officer or local public officer designated by the Director of Toxic Substances Control, to enforce the standards in the hazardous waste control law and the regulations adopted by the department to implement that law, except as specified. Existing law authorizes a representative of the department or the local officer or agency authorized to enforce the hazardous waste control law to, among other things, enter and inspect a factory, plant, construction site, disposal site, transfer facility, or an establishment or any other place or environment where hazardous wastes are stored, handled, processed, disposed of, or being treated to recover resources. This bill would require the department, on or before January 1, 2021, to adopt regulations establishing inspection frequencies for permitted hazardous waste treatment, storage, and disposal facilities, hazardous waste generators, and hazardous waste transporters, as specified. The bill would require the inspection frequency for a hazardous waste land disposal facility to be no less than 2 times per calendar year and for any other permitted hazardous waste treatment, storage, or disposal facility to be no less than once per calendar year.</p>	<p>Watch</p>
<p>AB 2097 Acosta R</p> <p>Carpet recycling: annual reports.</p>	<p>ASSEMBLY NAT. RES. 2/22/2018 - Referred to Com. on NAT. RES.</p>	<p>Existing law requires a manufacturer of carpet sold in this state to submit, either individually or through a carpet stewardship organization, a carpet stewardship plan that meets specified requirements to the Department of Resources Recycling and Recovery. Existing law requires a carpet stewardship organization, on or before July 1 of each year, to demonstrate to the department that it has achieved the amount and rates of recycling, and a reduction in disposal, of postconsumer carpet subject to its stewardship plan and in meeting the other specified goals included in the organization's plan. Existing law requires a manufacturer of carpet sold in this state to submit to the department, either individually or through a carpet stewardship organization, on or before July 1 of each year, a report describing its activities to achieve the purposes of the carpet stewardship laws. This bill would change the date by which the annual demonstration and the annual report are required to be completed from July 1 of each year to September 1 of each year.</p>	
<p>AB 2115 Santiago D</p> <p>Vehicles: passing and overtaking: waste service vehicles.</p>	<p>ASSEMBLY TRANS. 2/22/2018 - Referred to Com. on TRANS.</p>	<p>Existing law requires the driver of a vehicle overtaking another vehicle proceeding in the same direction to pass to the left at a safe distance without interfering with the safe operation of the overtaken vehicle, as specified. Existing law requires the driver of a vehicle overtaking any interurban electric or streetcar stopped or about to stop for the purpose of receiving or discharging any passenger to stop the vehicle to the rear of the nearest running board or door of the car and remain standing until all passengers have boarded the car, or upon alighting have reached a place of safety, except as provided. A violation of these provisions is an offense. This bill would require the driver of a vehicle overtaking a stopped waste service vehicle, as defined, to pass at a safe distance without interfering with the safe operation of the waste service vehicle, and at a speed not exceeding 15 miles per hour. Because a violation of these provisions would be a crime, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.</p>	<p>Support</p>

Bill ID/Topic	Location	Summary	Position
<p>AB 2178 Limón D</p> <p>Limited service charitable feeding operation.</p>	<p>ASSEMBLY PRINT 2/13/2018 - From printer. May be heard in committee March 15.</p>	<p>Existing law, the California Retail Food Code, establishes uniform health and sanitation standards for retail food facilities for regulation by the State Department of Public Health, and requires local enforcement agencies to enforce those provisions. Existing law defines “food facility” as an operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption at the retail level, as specified. Existing law exempts, among others, a nonprofit association that gives or sells food to its members and guests and not to the general public, as specified, from the definition of food facility. A violation of the California Retail Food Code is generally a misdemeanor. This bill would exempt a limited service charitable feeding operation from the definition of food facility. The bill would define that operation to include a food service operation, whose purpose is to feed food-insecure individuals, and that does one of specified actions, including food warming of commercially prepackaged food. The bill would require all categories of limited service charitable feeding operations to register with the local enforcement agency and to adhere to specified general food safety requirements, where applicable, and to best management practices identified by the local enforcement agency, as specified. By creating a new crime and by imposing duties on local officials, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.</p>	<p>Watch</p>
<p>AB 2189 Santiago D</p> <p>Hazardous waste: facilities: permits.</p>	<p>ASSEMBLY PRINT 2/13/2018 - From printer. May be heard in committee March 15.</p>	<p>Existing law, as part of the hazardous waste control laws, requires a facility handling hazardous waste to obtain a hazardous waste facilities permit from the Department of Toxic Substances Control. Existing law requires an application for a hazardous waste facilities permit or other grant of authorization to use and operate a hazardous waste facility to include a disclosure statement, as specified. This bill would make a nonsubstantive change to the provision requiring the application to include a disclosure statement.</p>	
<p>AB 2277 Mathis R</p> <p>Solid waste facilities: home-generated pharmaceutical waste: incineration.</p>	<p>ASSEMBLY PRINT 2/14/2018 - From printer. May be heard in committee March 16.</p>	<p>The Pharmacy Law provides for the licensure and regulation of pharmacists and pharmacy establishments by the California State Board of Pharmacy. Existing law required the Department of Resources Recycling and Recovery, pursuant to provisions repealed on January 1, 2013, to develop, in consultation with appropriate state, local, and federal agencies, model programs for the collection and proper disposal of drug waste. Under the Medical Waste Management Act, the State Department of Public Health regulates the management and handling of medical waste, as defined, including pharmaceutical waste. Existing law defines the term medical waste and excludes certain types of waste from that definition. This bill would vest the Department of Resources Recycling and Recovery with the primary responsibility for the disposal of home-generated pharmaceutical waste and, on or before January 1, 2020, would require the Department of Resources Recycling and Recovery, in collaboration with the State Department of Public Health, the Department of Toxic Substances Control, and the California State Board of Pharmacy, to adopt regulations authorizing the incineration of home-generated pharmaceutical waste by solid waste facilities, as specified. This bill contains other related provisions.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>AB 2308 Stone, Mark D</p> <p>Cigarettes: single-use filters.</p>	<p>ASSEMBLY PRINT 2/14/2018 - From printer. May be heard in committee March 16.</p>	<p>Under existing law, the Stop Tobacco Access to Kids Enforcement Act, an enforcing agency, as defined, may assess civil penalties against any person, firm, or corporation that sells, gives, or in any way furnishes a cigarette, among other items, to a person who is under 21 years of age, except as specified. The existing civil penalties range from \$400 to \$600 for a first violation, up to \$5,000 to \$6,000 for a 5th violation within a 5-year period. This bill would state findings and declarations of the Legislature regarding the health and safety hazards to residents of the state related to cigarettes utilizing single-use filters. The bill would prohibit a person or entity from selling, giving, or in any way furnishing to another person of any age in this state a cigarette utilizing a single-use filter made of any material, including cellulose acetate, any other fibrous plastic material, or any organic or biodegradable material. The bill would prohibit that selling, giving, or furnishing, whether conducted directly or indirectly through an in-person transaction or by means of any public or private method of shipment or delivery to an address in this state. This bill contains other related provisions and other existing laws.</p>	<p>Watch</p>
<p>AB 2321 McCarty D</p> <p>Solid waste: integrated waste management.</p>	<p>ASSEMBLY PRINT 2/14/2018 - From printer. May be heard in committee March 16.</p>	<p>The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste. This bill would make nonsubstantive changes to legislative findings regarding solid waste management in the state.</p>	

Bill ID/Topic	Location	Summary	Position
<p>AB 2345 Reyes D</p> <p>Hazardous waste: facilities: permits.</p>	<p>ASSEMBLY PRINT 2/14/2018 - From printer. May be heard in committee March 16.</p>	<p>Existing law, as part of the hazardous waste control law, requires a facility handling hazardous waste to apply for and obtain a hazardous waste facilities permit from the Department of Toxic Substances Control. Existing law requires that a hazardous waste facilities permit be for a fixed term not to exceed 10 years for certain facilities. Existing law requires the owner or operator of a facility intending to extend the facility's permit to submit a complete Part A application for a permit renewal before the fixed term of the permit expires, and, at any time following the submittal of the Part A application, to submit a complete Part B application, or any portion of that application, and other relevant information, if requested by the department. Existing law provides that when a complete Part A renewal application and any other requested information has been submitted before the end of the permit's fixed term, the permit is deemed extended until the application is approved or denied and the owner has exhausted all applicable rights of appeal. This bill would require, for a hazardous waste facilities permit that will expire on or before July 1, 2021, the owner or operator of a facility intending to extend the term of that permit to submit a Part A and Part B application for a permit renewal at least 6 months before the fixed term of the permit expires. The bill would require, for a hazardous waste facilities permit that will expire after July 1, 2021, the owner or operator to submit a Part A and Part B application for a permit renewal at least 2 years before the fixed term of the permit expires. The bill would provide that, if a Part A and Part B renewal application and any other requested information has been submitted in accord with these requirements, the permit is deemed extended until the application is approved or denied and the owner has exhausted all applicable rights of appeal. The bill would also require the department, no later than 90 days after receiving an application for a hazardous waste facilities permit, to post on its Internet Web site a timeline with the estimated dates of key milestones in the application review process, to note on its Internet Web site that these dates are estimates, and to update the dates as needed.</p>	<p>Watch</p>
<p>AB 2379 Bloom D</p> <p>Waste management: polyester microfiber.</p>	<p>ASSEMBLY PRINT 2/15/2018 - From printer. May be heard in committee March 17.</p>	<p>The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) prohibits any person, in the course of doing business, from knowingly and intentionally exposing any individual to a chemical known to the state to cause cancer or reproductive toxicity without giving a specified warning, or from discharging or releasing such a chemical into any source of drinking water, except as specified. Existing law prohibits the sale of expanded polystyrene packaging material by a wholesaler or manufacturer unless that material is composed of 100% recycled material. Existing law prohibits a person from selling a plastic product in this state that is labeled with the term "compostable," "home compostable," or "marine degradable" unless, at the time of sale, the plastic product meets the applicable ASTM International standard specification. Existing law prohibits, on and after January 1, 2020, a person, business, or other entity from selling or offering for promotional purposes in this state a personal care product containing plastic microbeads, as specified. This bill would require that clothing made from fabric that is more than 50% polyester bear a conspicuous label stating that the garment sheds plastic microfibers when washed and recommending hand washing. The bill would prohibit a person, on and after January 1, 2020, from selling or offering for sale clothing made from fabric that is more than 50% polyester that does not bear that label.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>AB 2411 McCarty D</p> <p>State Agency Buy Recycled Campaign: compost.</p>	<p>ASSEMBLY PRINT 2/15/2018 - From printer. May be heard in committee March 17.</p>	<p>Existing law declares the intent of the Legislature that the state pursue all feasible measures to improve markets for recycled products including, but not limited to, bid evaluation preferences for purchases made by the state. Existing law requires a state agency to report annually to the California Integrated Waste Management Board its progress in meeting recycled product purchasing requirements, as specified. Existing law requires each state agency to ensure that, before January 1, 2020, at least 50% of reportable purchases are recycled products. Existing law also requires each state agency to ensure that, on and after January 1, 2020, that at least 75% of reportable purchases are recycled products, except for paint, antifreeze, and tires, and that at least 50% of reportable purchases of paint, antifreeze, and tires are recycled products. This bill contains other existing laws.</p>	<p>Support</p>
<p>AB 2474 Quirk D</p> <p>Hazardous waste: discarded appliances.</p>	<p>ASSEMBLY PRINT 2/15/2018 - From printer. May be heard in committee March 17.</p>	<p>Existing law, as part of the hazardous waste control laws, requires a person wishing to operate as a certified appliance recycler to apply to obtain or renew certification from the Department of Toxic Substances Control. Existing law requires the department to review the application and, if the application is complete and meets specified requirements, to issue a numbered certificate to the applicant. Existing law requires the department, upon issuance of a certificate, to transmit the application and certification to the certified unified program agency in whose jurisdiction the person is located. Existing law requires the certified unified program agency to inspect the certified appliance recycling facility, as specified. This bill would require a certified unified program agency, following an inspection of a certified appliance recycling facility, to transmit the results of the inspection to the department and would authorize the department to take any authorized enforcement action based on the results of the inspection and any other pertinent information. By imposing a new duty on certified unified program agencies, the bill would impose a state-mandated local program. The bill would also make nonsubstantive corrections. This bill contains other related provisions and other existing laws.</p>	<p>Watch</p>
<p>AB 2538 Rubio D</p> <p>Stormwater.</p>	<p>ASSEMBLY PRINT 2/15/2018 - From printer. May be heard in committee March 17.</p>	<p>Existing law requires the State Water Resources Control Board to develop monitoring requirements for municipalities and industries that are required to obtain a stormwater permit in accordance with the federal Clean Water Act. This bill would make nonsubstantive changes to that provision.</p>	

Bill ID/Topic	Location	Summary	Position
<p>AB 2606 Fong R</p> <p>Hazardous waste: facilities: permits: renewals.</p>	<p>ASSEMBLY PRINT 2/16/2018 - From printer. May be heard in committee March 18.</p>	<p>Existing law, as part of the hazardous waste control law, requires a facility handling hazardous waste to apply for and obtain a hazardous waste facilities permit from the Department of Toxic Substances Control. Existing law requires that a hazardous waste facilities permit be for a fixed term not to exceed 10 years for certain facilities. Existing law requires the owner or operator of a facility intending to extend the facility's permit to submit a complete Part A application for a permit renewal before the fixed term of the permit expires and, at any time following the submittal of the Part A application, to submit a complete Part B application, or any portion of that application, and other relevant information, if requested by the department. Existing law requires a person who applies for, or requests, a renewal of an existing hazardous waste facilities permit to enter into a written agreement with the department pursuant to which that person is required to reimburse the department for the costs incurred by the department in processing the renewal application. This bill would deem a hazardous waste facilities permit renewal application approved 90 days after the submission of the application to the department, if the department has not taken action on the application and certain other conditions apply, including that operations at the hazardous waste facility have not changed significantly since the approval of the permit for the preceding term. The bill would impose an unspecified maximum on the amount of reimbursement to the department for the costs incurred by the department in processing an application or responding to a request for the renewal of an existing hazardous waste facilities permit.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>AB 2660 Quirk D</p> <p>Hazardous waste: surplus household consumer products.</p>	<p>ASSEMBLY PRINT 2/16/2018 - From printer. May be heard in committee March 18.</p>	<p>Existing law requires the Department of Resources Recycling and Recovery, in consultation with the Department of Toxic Substances Control, to develop and implement a public information program to provide uniform and consistent information on the proper disposal of hazardous substances found in and around homes. Existing law provides for regulation of the disposition of hazardous waste by the Department of Toxic Substances Control. Existing law requires the Department of Toxic Substances Control to convene a Retail Waste Working Group, as prescribed, to consider and make findings and recommendations relating to requirements for the management of surplus household consumer products, waste reduction opportunities for those products, and waste management requirements, as specified. A violation of the hazardous waste control laws is a crime. This bill would impose certain requirement on a person who transfers or ships a surplus household consumer product, as defined by the bill, to a reverse distributor, as defined. The bill would authorize a reverse distributor to receive a surplus household consumer product to evaluate the product for reuse, donation, transfer for credit, and other specified purposes. The bill would authorize a reverse distributor to transfer the product for recycling or disposal only after first evaluating the product for all of the other specified purposes. The bill would provide that a surplus household consumer product transferred or shipped to a reverse distributor is not a waste and that the person transferring or shipping the surplus household consumer product to the reverse distributor is not required to make a waste determination for that surplus household consumer product. The bill would provide that a surplus household consumer product is not a waste until a reverse distributor, or other person in possession of the surplus household consumer product, makes the decision to recycle or dispose of the surplus household consumer product. By creating a new crime, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.</p>	<p>Watch</p>
<p>AB 2676 Gipson D</p> <p>Weighmasters: junk dealers and recyclers: new licenses and license renewals: additional application information.</p>	<p>ASSEMBLY PRINT 2/16/2018 - From printer. May be heard in committee March 18.</p>	<p>Existing law requires a person who weighs, measures, or counts a commodity and issues a statement or memorandum of the weight, measure, or count that is used as the basis for either the purchase or sale of that commodity or charge for service, to obtain a license as a weighmaster from the Department of Food and Agriculture, and imposes an annual license fee and various other requirements on weighmasters. Existing law, until January 1, 2019, requires a recycler or junk dealer who is an applicant for a new weighmaster license or a renewal of a weighmaster license to furnish specified additional information on the application. This bill would extend the operation of the requirement to furnish the specified additional application information to January 1, 2024. The bill would also make nonsubstantive changes by deleting obsolete provisions.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>AB 2766 Berman D</p> <p>California Beverage Container Recycling and Litter Reduction Act: market development payments.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>Existing law, the California Beverage Container Recycling and Litter Reduction Act, requires a distributor to pay a redemption payment for every beverage container sold or offered for sale in the state by the distributor to the Department of Resources Recycling and Recovery for deposit in the California Beverage Container Recycling Fund. Moneys in the fund are continuously appropriated to the department for certain payments, including, until January 1, 2018, market development payments. Former law authorized the department, until January 1, 2018, (1) to annually expend up to \$10,000,000 from the fund to make market development payments to an entity certified by the department as a recycling center, processor, or dropoff or collection program for empty plastic beverage containers that are subsequently washed and processed into flake, pellet, or other form, and made usable for the manufacture of a plastic product, or to a product manufacturer for empty plastic beverage containers that are subsequently washed and processed into flake, pellet, or other form, and used by that product manufacturer to manufacture a product, and (2) to expend additional amounts to make market development payments, calculated as provided. This bill would authorize the department to again expend those amounts to make market development payments until January 1, 2024. By authorizing expenditures from a continuously appropriated fund, this bill would make an appropriation. This bill contains other related provisions.</p>	<p>Watch</p>
<p>AB 2779 Stone, Mark D</p> <p>Recycling: single-use plastic beverage container caps.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>The California Integrated Waste Management Act of 1989, which is administered by the Department of Resources Recycling and Recovery, requires every rigid plastic packaging container, as defined, sold or offered for sale in this state, to generally meet one of specified criteria. This bill would prohibit a retailer, on and after an unspecified date, from selling or offering for sale a single-use plastic beverage container with a cap that is not tethered to or contiguously affixed to the beverage container. The bill would define terms for purposes of these provisions.</p>	

Bill ID/Topic	Location	Summary	Position
<p>AB 2832 Dahle R</p> <p>Recycling and reuse: lithium-ion batteries.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>The Rechargeable Battery Recycling Act of 2006 requires every retailer, as defined, to have in place a system for the acceptance and collection of used rechargeable batteries for reuse, recycling, or proper disposal. Existing law requires the system for the acceptance and collection of used rechargeable batteries to include, at a minimum, specified elements, including, among others, the take-back of a used rechargeable battery of the type or brand that the retailer sold or previously sold at no cost to the consumer. Existing law defines “rechargeable battery” for purposes of these provisions to mean a small, nonvehicular, rechargeable nickel-cadmium, nickel metal hydride, lithium-ion, or sealed lead-acid battery, or a battery pack containing these types of batteries. This bill would require the Department of Toxic Substances Control to work collaboratively with specified state entities and stakeholders to identify approaches for the reuse or recycling of lithium-ion batteries from electric vehicles when the batteries are no longer suitable for their intended purposes, and to submit a report to the Legislature, on or before July 1, 2020, based on their findings. The bill would require the Department of Toxic Substances Control to develop a grant program to fund the development of recycling and reuse opportunities for lithium-ion batteries from electric vehicles when the batteries are no longer suitable for their intended purposes. The bill would require the Department of Resources Recycling and Recovery to develop a process for a consumer to properly dispose of a lithium-ion battery from an electric vehicle, at no cost to the consumer.</p>	<p>Watch</p>
<p>AB 2908 Berman D</p> <p>Tire recycling: California tire regulatory fee and waste tire program.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>(1)The California Tire Recycling Act requires, until January 1, 2024, a person who purchases a new tire to pay a California tire fee of \$1.75 per tire, for deposit in the California Tire Recycling Management Fund, for expenditure by the Department of Resources Recycling and Recovery upon appropriation by the Legislature, to fund the waste tire program and for other purposes, including to pay for the costs associated with a waste tire and used tire hauler program and manifest system, as provided. After January 1, 2024, existing law reduces the tire fee to \$0.75 per tire. This bill would require, until January 1, 2024, upon a specified finding by the department, a waste tire generator that is a retail seller of new tires to end user purchasers to pay a California tire regulatory fee and to remit that fee to the state on a quarterly schedule for deposit in the California Tire Recycling Management Fund. The bill would require the department to track revenue from the California tire regulatory fee separately and would prohibit those funds from being used for activities other than those specified. The bill would require the department to identify the specific programs that the California tire regulatory fee would fund. The bill would require the department to establish the California tire regulatory fee in an amount that does not exceed \$1 per new tire sold, and would require the department to base the amount of the fee on specified criteria, as provided. The bill would authorize the department to differentiate in setting the fees between the waste tire generators who are retail sellers depending upon the nature of the activity generating waste tires, the number of waste tires generated, and other appropriate bases. This bill contains other related provisions and other existing laws.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>AB 2921 Low D</p> <p>Polystyrene Food Service Packaging Recovery and Recycling Act.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste. Existing law requires all rigid plastic bottles and rigid plastic containers sold in the state to be labeled with a code that indicates the resin used to produce the rigid plastic bottle or rigid plastic container, and designates the number “6” as the code number for polystyrene resin. This bill would enact the Polystyrene Food Service Packaging Recovery and Recycling Act, which would authorize polystyrene food service packaging (PFP) manufacturers and polystyrene resin producers to form or designate an organization consisting of PFP manufacturers and resin producers, to be known as the Polystyrene Food Service Packaging Recycling Organization. If the PFP manufacturers and resin producers form or designate a PFP Recycling Organization, the bill would require each PFP manufacturer or resin producer that formed or designated the organization that sells polystyrene food service packaging or polystyrene resin in this state to pay to the PFP Recycling Organization the polystyrene food service packaging assessment fee, which the bill would require to be established in an amount reasonably anticipated to generate an unspecified number of dollars within the first year of the program. The bill would require the collected fees to be used by the organization to carry out the requirements of the act and for appropriate projects and programs that would further the purposes of the act, including awarding grants to public entities for programs designed to increase community access to PFP recycling, to promote efforts to recycle PFP, and to reduce or abate litter from PFP. The bill would impose civil penalties on the PFP manufacturers or resin producers that formed or designated the PFP Recycling Organization that fail to remit the PFP assessment fee, as specified, and would authorize the department to expend the civil penalty moneys to support its duties under the act.</p>	<p>Oppose</p>
<p>AB 2928 Chen R</p> <p>Hazardous waste: quantity determinations.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>Existing law determines the type of regulation a business generating hazardous waste receives based, in part, on the quantity of that waste the business generates. Existing law requires that a generator of hazardous waste include all hazardous waste that it has generated in any month, except for universal wastes, as defined, when determining that quantity. This bill would make a nonsubstantive change to the provision requiring all hazardous waste generated in any month by a generator to be included in that quantity determination, as provided.</p>	
<p>AB 3036 Cooley D</p> <p>Solid waste: definition.</p>	<p>ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.</p>	<p>The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste. This bill would exclude from the act’s definition of “solid waste” byproducts from processing food, if those byproducts are intended for use as animal feed.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
AB 3138 Muratsuchi D Hazardous materials: management: civil liability.	ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.	Existing law requires the Secretary for Environmental Protection to implement a unified hazardous waste and hazardous materials management regulatory program. Existing law requires every county to apply to the secretary to be certified to implement the unified program and allows a city or local agency to implement the unified program as a unified program agency, or UPA. This bill would impose civil or administrative liability on a person or stationary source that violates those provisions in an amount of not more than \$25,000 for each day in which the violation occurs, regardless of whether the violation was committed knowingly or after reasonable notice. This bill contains other existing laws.	Watch
AB 3154 Rubio D Litter: receptacles.	ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.	Existing law requires litter receptacles to be placed in all public places in the state, as specified, and provides that any person owning or operating any establishment or public place in which litter receptacles are required to be placed shall procure, place, and maintain those receptacles at that person's own expense on the premises. This bill would make nonsubstantive changes to this provision.	
AB 3178 Rubio D Solid waste: recycling: diversion: green material.	ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.	The California Integrated Waste Management Act of 1989, which is administered by the Department of Resources Recycling and Recovery, establishes an integrated waste management program. Existing law requires each city, county, and regional agency, if any, to develop a source reduction and recycling element of an integrated waste management plan. The act requires the source reduction and recycling element to divert from disposal 50% of all solid waste subject to the element through source reduction, recycling, and composting activities, with specified exceptions. Existing law governs the use of solid waste as alternative daily cover in the construction and operation of a solid waste landfill, including the determination of whether that use and other beneficial reuse of solid waste constitutes diversion through recycling rather than disposal. Existing law provides for the department to adopt regulations in this regard. This bill would delete obsolete provisions relating to the adoption of these regulations.	Watch
AB 3187 Grayson D Biomethane.	ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.	Under existing law, the Public Utilities Commission has regulatory authority over public utilities, including gas corporations. Existing law requires the commission to adopt policies and programs that promote the in-state production and distribution of biomethane, as defined, that facilitate the development of a variety of sources of in-state biomethane. This bill would state the intent of the Legislature to enact legislation establishing goals for the procurement of biomethane.	Watch

Bill ID/Topic	Location	Summary	Position
AB 3227 Burke D Natural Gas Pipeline Safety Act of 2011: intrastate transmission lines: safety valves.	ASSEMBLY PRINT 2/17/2018 - From printer. May be heard in committee March 19.	The Public Utilities Act authorizes the commission to ascertain and fix just and reasonable standards, classifications, regulations, practices, measurements, or services to be furnished, imposed, observed, and followed by specified public utilities, including gas corporations. Existing law requires the installation of automatic shutoff or remote controlled sectionalized block valves on certain intrastate gas transmission lines that are located in a high consequence area, as defined, or that traverse an active seismic earthquake fault. Existing law requires the owner or operator of a commission-regulated gas pipeline facility that is an intrastate transmission line to provide the commission with a valve location plan, along with any recommendations for valve locations, and authorizes the commission to make modifications to the valve location plan. This bill would make a nonsubstantive change to this provision.	
SB 49 De León D California Environmental, Public Health, and Workers Defense Act of 2017.	ASSEMBLY RLS. 9/12/2017 - From committee with author's amendments. Read second time and amended. Re-referred to Com. on RLS.	(1)The federal Clean Air Act regulates the discharge of air pollutants into the atmosphere. The federal Clean Water Act regulates the discharge of pollutants into water. The federal Safe Drinking Water Act establishes drinking water standards for drinking water systems. The federal Endangered Species Act of 1973 generally prohibits activities affecting threatened and endangered species listed pursuant to that act unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service, as appropriate.This bill would require specified agencies to take prescribed actions to maintain and enforce certain requirements and standards pertaining to air, water, and protected species. By imposing new duties on local agencies, this bill would impose a state-mandated local program.This bill contains other related provisions and other existing laws. Last Amended on 9/12/2017	Watch
SB 71 Wiener D Solid waste: disposal.	ASSEMBLY U. & E. 2/26/2018 - From committee with author's amendments. Read second time and amended. Re-referred to Com. on U. & E.	The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally regulates the disposal, management, and recycling of solid waste. The act prohibits a person, other than an authorized recycling agent, from removing specified materials that have been segregated from solid waste materials and placed at a designated recycling collection location for residential curbside collection programs authorized by a city, county, or local agency for the purposes of collection and recycling or at a designated recycling collection location by any commercial or industrial entity. Existing law authorizes a court, in a civil action by a recycling agent against a person alleged to have violated these laws, to either allow treble damages or award a civil penalty, as specified, against the unauthorized person removing the recyclable material, and to allow treble damages or award a higher civil penalty, as specified, against a person for a second violation and subsequent violations.This bill, where a city, county, or other local government agency has authorized a solid waste enterprise to handle solid waste, would subject an unauthorized person to these same damages for collecting, removing, or transporting solid waste generated by another person on residential, commercial, or industrial premises, except in compliance with applicable law. The bill would expand civil enforcement to knowing participation in violations of these laws, and would require a court, if a plaintiff prevails in a civil action brought pursuant to these and related provisions, to award to the plaintiff reasonable attorney's fees, expert witness fees, and costs incurred in the course of the litigation, except as specified. Last Amended on 2/26/2018	

Bill ID/Topic	Location	Summary	Position
<p>SB 100 De León D</p> <p>California Renewables Portfolio Standard Program: emissions of greenhouse gases.</p>	<p>ASSEMBLY U. & E. 9/11/2017 - September 11 hearing postponed by committee. From committee with author's amendments. Read second time and amended. Re-referred to Com. on U. & E.</p>	<p>(1)Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations, while local publicly owned electric utilities, as defined, are under the direction of their governing boards. The California Renewables Portfolio Standard Program requires the PUC to establish a renewables portfolio standard requiring all retail sellers, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources, as defined, so that the total kilowatthours of those products sold to their retail end-use customers achieve 25% of retail sales by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. The program additionally requires each local publicly owned electric utility, as defined, to procure a minimum quantity of electricity products from eligible renewable energy resources to achieve the procurement requirements established by the program. The Legislature has found and declared that its intent in implementing the program is to attain, among other targets for sale of eligible renewable resources, the target of 50% of total retail sales of electricity by December 31, 2030.This bill would revise the above-described legislative findings and declarations to state that the goal of the program is to achieve that 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. The bill would require that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatthours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030.This bill contains other related provisions and other existing laws. Last Amended on 9/11/2017</p>	<p>Watch</p>
<p>SB 168 Wieckowski D</p> <p>Recycling: beverage containers.</p>	<p>ASSEMBLY DESK 1/30/2018 - In Assembly. Read first time. Held at Desk.</p>	<p>Existing law, the California Beverage Container Recycling and Litter Reduction Act, requires every beverage container sold or offered for sale in this state to have a minimum refund value. Under existing law, a beverage distributor is required to pay a redemption payment to the Department of Resources Recycling and Recovery for every beverage container sold or offered for sale in the state to a dealer, and the department is required to deposit those amounts in the continuously appropriated California Beverage Container Recycling Fund. This bill contains other existing laws. Last Amended on 1/18/2018</p>	<p>Support</p>
<p>SB 936 Allen D</p> <p>Public contracts: environmentally preferable purchasing.</p>	<p>SENATE G.O. 2/8/2018 - Referred to Com. on G.O.</p>	<p>Existing law requires manufacturers, vendors, or other nongovernmental entities contracting with the Department of General Services to certify in writing that any environmental attribute claims they make concerning their products and services are consistent with specified guidelines.This bill would require the certification to be made in writing or electronically.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>SB 1048 Allen D</p> <p>Environmental education: source reduction and recycling.</p>	<p>SENATE RLS. 2/22/2018 - Referred to Com. on RLS.</p>	<p>Existing law requires the Office of Education and the Environment in the Department of Resources Recycling and Recovery, in cooperation with the State Department of Education and the State Board of Education, to develop and implement a unified education strategy on the environment for elementary and secondary schools in the state. Existing law requires the office, as a part of the strategy, to develop education principles for the environment that include concepts relating to various topics, including integrated waste management. This bill would state the intent of the Legislature to enact legislation that would add information about composting, food waste reduction, and reduction in the use of single use disposable plastics to the Office of Education and the Environment's education principles for the environment.</p>	<p>Watch</p>
<p>SB 1076 Hertzberg D</p> <p>Vehicles: transportation of hazardous waste.</p>	<p>SENATE RLS. 2/22/2018 - Referred to Com. on RLS.</p>	<p>Existing law declares the intent of the Legislature to provide the public additional protection through the licensing of motor carriers transporting hazardous material. Existing law authorizes the Department of the California Highway Patrol to inspect and license those motor carriers, with special attention directed to the negligent operators or repeat violators. This bill would make technical, nonsubstantive changes to those provisions.</p>	
<p>SB 1142 Skinner D</p> <p>Recycling: beverage containers.</p>	<p>SENATE RLS. 2/22/2018 - Referred to Com. on RLS.</p>	<p>Existing law establishes the California Beverage Container Recycling and Litter Reduction Act, which requires that every beverage container sold or offered for sale in this state have a minimum refund value. The act requires a beverage distributor to pay a redemption payment to the Department of Resources Recycling and Recovery for every beverage container sold or offered for sale in the state to a dealer, and requires the department to deposit those amounts in the California Beverage Container Recycling Fund. This bill would make nonsubstantive changes to the provision naming the act.</p>	
<p>SB 1161 Stone R</p> <p>Junk dealers and recyclers: payment for nonferrous material.</p>	<p>SENATE B., P. & E.D. 2/22/2018 - Referred to Com. on B., P. & E.D.</p>	<p>Existing law requires junk dealers and recyclers, as defined, to maintain written records of all sales and purchases made in the course of their business, and makes a violation of the recordkeeping requirements a misdemeanor. Existing law prohibits a junk dealer or recycler from providing payment for nonferrous material, as defined, unless the payment is made by cash or check, the check is mailed or the cash or check is provided no earlier than 3 days after the date of sale, and the dealer or recycler obtains a photograph or video of the seller and certain other identifying information, as specified, which is to be retained by the dealer or recycler, as part of the written record of purchases, for a specified period of time. Existing law exempts from the payment by cash or check requirement those sellers of junk or recycling materials who conduct 5 or more separate transactions per month with the junk dealer or recycler, as specified. This bill, instead, would require payment for the material to be made in the form of a donation to a nonprofit organization, unless the material is delivered by a junk dealer or recycler. The bill, if the material is delivered by a junk dealer or recycler, would require payment for the material to be made by cash or check.</p>	<p>Watch</p>

Bill ID/Topic	Location	Summary	Position
<p>SB 1335 Allen D</p> <p>Solid waste: disposable food service packaging: state agencies and large state facilities.</p>	<p>SENATE RLS. 2/20/2018 - From printer. May be acted upon on or after March 22.</p>	<p>The California Integrated Waste Management Act of 1989, administered by the Department of Resources Recycling and Recovery, generally requires rigid plastic packaging containers, as defined, sold or offered for sale in this state to meet one of specified criteria. This bill would enact the Sustainable Packaging for the State of California Act of 2018, which would prohibit a food service facility in a state agency or large state facility, on and after January 1, 2021, from dispensing prepared food to a customer using disposable food service packaging unless the type of disposable food service packaging is accepted for recovery by the recycling or composting program serving the state agency or large state facility and it has been demonstrated to the satisfaction of the department that the type of disposable food service packaging is recovered for recycling or composting at a rate of 75% or more.</p>	<p>Support</p>
<p>SB 1440 Hueso D</p> <p>Biomethane.</p>	<p>SENATE RLS. 2/20/2018 - From printer. May be acted upon on or after March 22.</p>	<p>Existing law requires state agencies to consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas. Existing law requires the Public Utilities Commission, in consultation with the State Energy Resources Conservation and Development Commission and the State Air Resources Board, to consider additional policies to support the development and use in the state of renewable gas that reduce short-lived climate pollutants in the state. This bill would state the intent of the Legislature to enact legislation to establish biomethane procurement goals.</p>	

*California Ocean Litter Prevention Strategy:
Addressing Marine Debris from Source to Sea*

DRAFT
REVISED DRAFT

January 22, 2018

****PLEASE NOTE****

Thank you for taking the time to review the draft *California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea (Strategy)*. The draft Strategy was developed based on a wide range of stakeholder input and identifies Goals, Objectives, and a list of Action Items for stakeholders to collaboratively implement to prevent and reduce ocean litter; it has been revised significantly based on input received during the first public comment period (September to October 2017), and the second Workshop that took place in November 2017.

Please note that this document is not meant to be a “consensus document” (i.e., not every organization will agree with the inclusion of all Action Items in the Strategy), but rather, is meant to provide an opportunity and a framework for many different organizations, with different mandates, to contribute to addressing the problem of ocean litter in California over the next six years. We encourage reviewers to focus on those Action Items that align with existing organizational priorities.

During this public comment period, we are soliciting feedback on the following:

1. **Action Item sign-ups:** Please identify any Action Items that you (and your organization) are interested in taking a lead or partnership role in implementing. **Lead Organizations** are committed to implementing an Action Item, given organizational and funding constraints; they will serve as the point of contact for NOAA and OPC for progress reports and check-ins throughout the Strategy’s six-year timeframe, and will take a leadership role in communicating and coordinating with other collaborators/Partner Organizations on the Action Item. **Partner Organizations** will serve a supporting role in implementing an Action Item, in collaboration with Lead and other Partner Organizations.
 - a) **For those organizations that are already listed next to Action Items in the draft Strategy,** please review where your organization is listed and let the planning team know if you would like your organization’s status to be changed (i.e., if you would like to become a Lead Organization rather than a Partner Organization, or vice versa, or if you would like to be removed from the Action Item entirely).
 - b) **Note:** Please be sure to specify how you would like your or your organization’s name to appear in the Strategy. Additionally, please specify who from your organization should be added to our listserv, so that we know who to reach out to when the time comes to start contacting Lead and Partner Organizations.
2. **OPC priorities:** Please review and provide comments on OPC priorities that are outlined in this draft. In particular, please pay attention to the proposed timelines associated with the priorities, and the feasibility of achieving the priorities in the next six years.
3. **Action Item language:** If you would like significant changes made to the language of specific Action Items, please accompany your suggested edits with justifications.

4. **Strategy implementation scheme:** Do you think that conducting check-ins every six months will be too frequent, too infrequent?

Please send comments, edits, and questions regarding the draft Strategy to oceanlitterstrategy@resources.ca.gov by **Friday, February 23, 2018**. When sending your comments, please include your thoughts on the above four questions. We anticipate that a final draft of the Strategy will be circulated early- to mid-April.

Thanks again and we look forward to hearing from you.

Sincerely,

The Planning Team

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DRAFT

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EXECUTIVE SUMMARY

Ocean litter is a pervasive problem at local, regional, and global scales with a wide range of consequences to human health, the environment, and the economy. Immediate, collaborative action to reduce and prevent ocean litter will ensure that California communities, environments, and economies remain productive and vibrant. The Ocean Protection Council (OPC) and the National Oceanic and Atmospheric Administration's Marine Debris Program (NOAA MDP) present this update to OPC's 2008 *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. The 2018 *California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea* (Strategy) will provide structure and guidance for California stakeholders to efficiently address this pressing issue.

The 2008 Strategy served as a powerful and effective document to promote action on addressing ocean litter. Since 2008, many of the actions described in the document have either been accomplished or are in progress. For example, the statewide plastic bag ban was ratified by voters in 2016, and the State Water Resources Control Board's Trash Amendments were adopted in 2015. While we have made great strides in addressing ocean litter in California, our understanding of the issue has changed considerably in the last decade. For example, the investigation of microplastics' presence in aquatic ecosystems and impacts on marine life has increased dramatically over the last ten years. This 2018 update expands the previous Strategy to include projects of a variety of scales and scopes so that entities including government agencies, industry, academia, nonprofits, and tribes can collaborate on meaningful contributions to reducing ocean litter in California.

A wide range of stakeholder input was gathered during two Workshops and two rounds of public comment. The resulting Strategy is organized into Goals, Objectives, and specific Action Items. Contributors to this document developed Action Items that are politically, socially, and economically feasible for California to accomplish within the next six years. The Strategy prioritizes source reduction Goals and Action Items, as agencies and experts agree that source reduction is the most effective tactic to address ocean litter.

Most Action Items are accompanied by a list of Lead and/or Partner Organizations. Given the many dynamic and influential ocean litter stakeholders in California, the Strategy provides an opportunity for organizations to take a leadership role on Action Items that align with their respective goals and mandates. OPC and NOAA MDP are committed to providing overall leadership and coordination on tracking progress on Strategy implementation, facilitating communication between partner organizations, and sharing updates among interested stakeholders.

Throughout the process of developing the 2018 Strategy, stakeholders expressed interest in OPC articulating its priorities for ocean litter. OPC's proposed priorities to address ocean litter are laid out in the "California Ocean Protection Council Priorities to Address Ocean Litter" section of the Strategy. Implementation of OPC Priorities will occur over the next six years, and stakeholders

will receive updates on OPC staff's progress on implementing these priorities at least annually as part of the California Ocean Litter Strategy implementation process. OPC's priorities can be divided into three broad categories, land-based sources of ocean litter, microplastics and microfibers, and fishing and aquaculture gear.

In summary, this document provides a holistic, collaborative strategy for addressing ocean litter in California, with a focus on reducing land-based litter at its source. It focuses on high impact Action Items that entities can commit to working on over the next six years. The document provides both guidance and flexibility so that Lead and Partner Organizations can work collaboratively to pursue funding (where needed) and implement these Action Items. Partnership across sectors is necessary to reduce and prevent ocean litter and ensure a healthy coast and ocean for current and future generations of Californians.

DRAFT

LIST OF ACRONYMS

AB	Assembly Bill
ACC	American Chemistry Council
BACWA	Bay Area Clean Water Agencies
BMP(s)	Best Management Practice(s)
CalRecycle	California Department of Resources Recycling and Recovery
CASA	California Association of Sanitation Agencies
CDFW	California Department of Fish and Wildlife
CSU	California State University
CSUCI	California State University, Channel Islands
CSULB	California State University, Long Beach
DTSC	California Department of Toxic Substances Control
EPA	Environmental Protection Agency
EPR	Extended Producer Responsibility
ESRM	Environmental Science and Resource Management
FGC	California Fish and Game Commission
FTIR	Fourier Transform Infrared
GPS	Global Positioning System
IGISc	Institute for Geographic Information Science
NOAA	National Oceanic and Atmospheric Administration
NOAA MDP	National Oceanic and Atmospheric Administration Marine Debris Program
OPC	California Ocean Protection Council
PRCC	Plastic Recycling Corporation of California
SB	Senate Bill
SCAP	Southern California Alliance of Publicly Owned Treatment Works
SCCWRP	Southern California Coastal Water Research Project
SDSU	San Diego State University
SFEI	San Francisco Estuary Institute
SFSU	San Francisco State University
UC	University of California
UNEP	United Nations Environment Programme
WTO	World Trade Organization

GLOSSARY OF COMMONLY USED TERMS

Common Ocean Litter Items: Items that are most prevalent in ocean litter found in or on California's waterways, coastlines, or ocean, as defined by relevant datasets (e.g., Coastal Cleanup Day data). Currently, based on Coastal Cleanup Day data (California Coastal Commission 2017), common ocean litter items in California are primarily plastic, single-use items, items which are conventionally disposed of after one use and persist in aquatic environments.

Land-Based Ocean Litter: Items that became litter on land (via land-based activities) and subsequently entered the aquatic environment.

Lead Organization: Lead organizations are committed to implementing an Action Item, given organizational and funding constraints. Lead organizations will serve as the point of contact for NOAA and OPC for progress reports and check-ins throughout the Strategy's six-year timeframe, and will take a leadership role in communicating and coordinating with other collaborators/partner organizations on the Action Item.

Marine Debris: any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes (15 C.F.R. Part 909 Section 909.1).

Ocean-Based Debris: Litter or other debris (e.g., lost fishing gear) that entered the marine environment via activities that occurred at sea.

Partner Organization: Partner organizations will serve a supporting role in implementing an Action Item, in collaboration with Lead and other Partner Organizations.

BACKGROUND

The Global Problem of Ocean Litter

Ocean litter, or marine debris, is a persistent, well-documented problem of global scale. Anthropogenic litter has been observed on seafloors and in submarine canyons (Pham et al. 2014, Lee et al. 2006), in sediments (Claessens et al. 2011, Mistri et al. 2017), surface waters (Isobe et al. 2017, Suaria et al. 2016, Law et al. 2010), and the water column (Lattin et al. 2004), and on beaches and shorelines worldwide (Ocean Conservancy 2017, Browne et al. 2011). While there are many ways to classify ocean litter, it is common to characterize it as either land-based or ocean-based, depending on how it enters the marine environment (Galgani et al. 2015). Land-based litter can enter the ocean through poor or inefficient waste management systems, or intentional or unintentional littering by individuals and industries (UNEP and GRID-Arendal 2016, Galgani et al. 2015). Furthermore, land-based litter may be discharged directly onto coastlines (through coastal tourism or recreation, for instance), or it may make its way to the marine environment through water treatment systems (especially in the case of microplastics), storm drains, rivers, or by wind (UNEP and GRID-Arendal 2016, Galgani et al. 2015, Rech et al. 2014). Ocean-based litter, on the other hand, is generated by the intentional or unintentional discharge of debris directly into the ocean. Marine activities that generate ocean-based litter include commercial shipping, recreational and commercial fishing, aquaculture, research and military endeavors, and offshore drilling (UNEP and GRID-Arendal 2016, Galgani et al. 2015).

The majority of marine debris comes from land-based sources, though ocean-based debris can be significant in some areas (e.g., Jang et al. 2014). Debris sources are dependent on nearby human activity (recreational beach use, shipping, fishing), proximity to population centers, and the efficiency of waste management systems (Jambeck et al. 2015, UNEP and GRID-Arendal 2016, Galgani et al. 2015). Whether land-based or ocean-based, most of the litter found in the world's oceans is plastic (Galgani et al. 2015, Derraik 2002). Between 1950 and 2015, 6300 million metric tons of primary and secondary (or recycled) plastic waste was produced worldwide (Geyer et al. 2017). Approximately 12% of this plastic waste was incinerated, and 9% was recycled, while 79% was discarded and is currently sitting in landfills or the environment (see Fig. 1 for historical and projected levels of plastic waste production and disposal) (Geyer et al. 2017). Currently, most (42%) of the primary non-fiber plastic produced comes in the form of packaging, most of which is used and disposed of within the same year it is produced (Geyer et al. 2017). Globally, it is estimated that between 4.8 and 12.7 million metric tons of plastic enter the ocean from land every year (Jambeck et al. 2015).

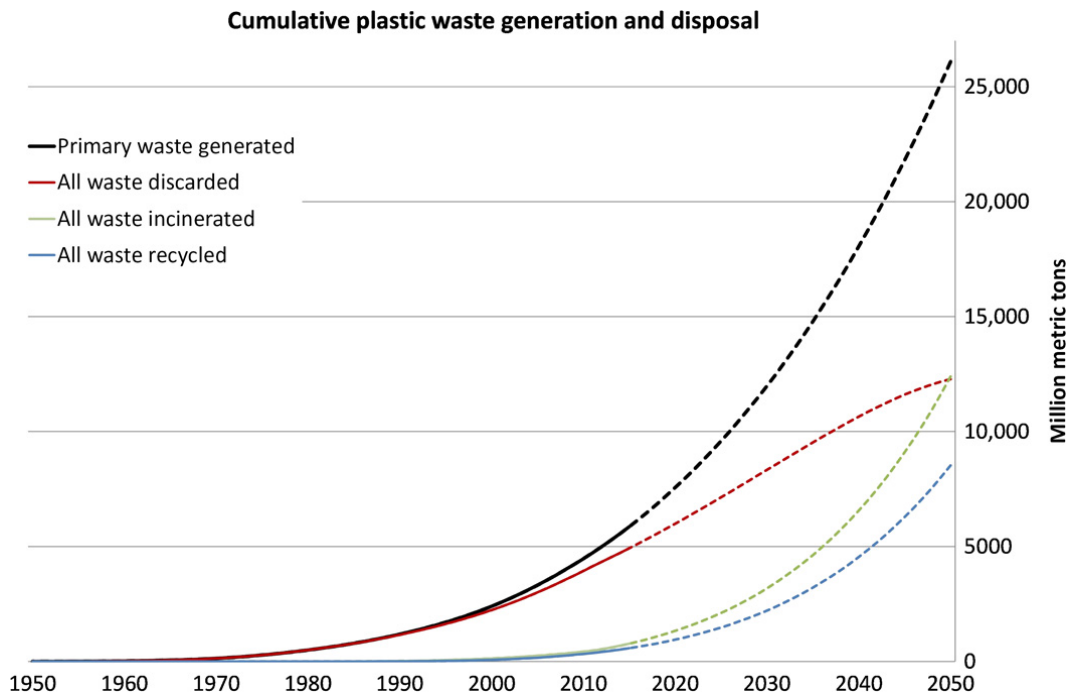


Fig.1. Historical and projected global cumulative plastic waste generation and disposal (here, disposal refers to how plastic waste is managed – either through incineration, recycling, or discard into landfills or the environment). Solid lines show historical data from 1950 to 2015, dotted lines show projections of historical trends to 2050. It is estimated that by 2050, 26,000 million metric tons of primary plastic waste will have been generated, 9,000 million metric tons of plastic waste will have been recycled, 12,000 million metric tons will have been incinerated, and another 12,000 million metric tons will have been discarded in landfills or the environment. Figure from Geyer et al. 2017.

Ocean litter has detrimental ecological, economic, and social impacts. Marine species, including seals, sea birds, sea turtles, whales, and dolphins, are entangled in debris, resulting in hindered movement, decreased feeding ability, injury, and death (NOAA MDP 2014, Kühn et al. 2015). Marine debris smothers and shades coral reefs and salt marshes, disrupting growth and surface cover (Richards and Beger 2011, Uhrin and Schellinger 2011). Fish (Boerger et al. 2010), crustaceans (Murray and Cowie 2011), shellfish (Browne et al. 2008), and zooplankton (Cole et al. 2013) ingest microplastics, and some of these organisms consume less food and have decreased energy for growth as a result (Watts et al. 2015, Cole et al. 2013). Furthermore, microplastics adsorb organic contaminants (e.g., polycyclic aromatic hydrocarbons and polychlorinated biphenyls) (Rochman et al. 2013a) and trace metals (Holmes et al. 2012) from their surrounding environments, and, depending on concentration gradients, may transfer contaminants to marine organisms, inducing harmful health effects (Browne et al. 2013, Rochman et al. 2013b). Plastics have recently been found in the digestive tracts of fish and shellfish and the soft tissues of shellfish sold at markets for human consumption (Rochman et al. 2015, Li et al. 2015, Van Cauwenberghe and Janssen 2014). A serving of six oysters grown off the coast of France could contain as many as 50 plastic particles (Van Cauwenberghe and Janssen 2014), indicating that plastic litter that we produce and allow to leak into the environment may end up back on our plates.

The economic impacts of ocean litter include costs associated with beach and harbor cleanup, loss of coastal tourism and recreation, impacts to the fishing and aquaculture industries – including costs associated with repairing damaged vessels, repairing or replacing fishing gear lost or damaged as a result of encountering marine debris, loss of catch due to ghost fishing¹ or gear encounters with marine debris, and loss of earnings due to time spent dealing with litter – and other impacts to human welfare and ecosystem services (Newman et al. 2015). The United Nations Environment Programme (UNEP) estimates that the impacts of plastic pollution, specifically, on the world’s oceans amount to about \$13 billion a year, accounting for time spent on cleanup, as well as revenue lost by the fisheries and tourism sectors (UNEP 2014). Ghost fishing, one consequence of lost fishing gear, can be extremely costly – both ecologically and for the fishing industry. For example, it is estimated that each year, the approximately 145,000 derelict blue crab pots in Chesapeake Bay catch more than 6 million blue crabs, killing over 3.3 million of them (4.5% of the 73 million blue crabs harvested commercially in 2014) (Bilkovic et al. 2016). These derelict pots also catch approximately 3.5 million white perch and 3.6 million Atlantic croaker every year (Bilkovic et al. 2016). The removal of ~44,000 derelict pots from Chesapeake Bay from 2008 to 2014 is estimated to have increased blue crab harvests by 38.17 million pounds, valued at \$33.5 million, due to improved efficiency of active crab pots (Bilkovic et al. 2016). On average, removing one derelict pot increases blue crab harvest by 868 pounds (Bilkovic et al. 2016).

The social impacts of ocean litter include loss of earnings for fishermen and aquaculturists from time spent dealing with gear or vessel entanglement, and boater injury or death following vessel interaction with large debris items (Mouat et al. 2010, Cho 2005, Newman et al. 2015). Social impacts also include reductions in ecosystem services provided by marine and coastal environments, such as psychological benefits gained from coastal recreation (Wyles et al. 2016) and seafood production (e.g., loss of catch (e.g., Bilkovic et al. 2016)). Potential human health effects from ingestion of microplastics through seafood are largely unknown, though research from other fields, such as pharmaceutical delivery, suggests that micro- and nano-plastics have the potential to enter, circulate, and bioaccumulate within the body after being ingested (Galloway 2015). The extent and impact of human exposure to contaminants and additives through ingestion of microplastics in seafood is also largely unknown, though it is thought to be low in comparison to other pathways of dietary intake (Lusher et al. 2017).

Ocean Litter and Waste Generation in California

Ocean litter is prevalent in California watersheds and ocean waters. For example, 78% of Southern California river miles² and about one third of seafloors and seafloor sediments in the Southern California Bight contain trash (Moore et al. 2016). Plastic is the most prevalent type of debris found across all habitats in the Southern California Bight, with wrappers, bags, plastic

¹ Ghost fishing is the continued catch of marine species by lost or discarded gear.

² A river mile is a measure of distance in miles from the mouth of a creek or river.

pieces, and Styrofoam being the most commonly found plastic items (Moore et al. 2016). Seventy-three water bodies throughout the State of California are listed as having impaired water quality due to the presence of large amounts of trash (State Water Board 2015). The California coast and ocean are also impacted by lost fishing gear. Between May 2006 and November 2012, the California Lost Fishing Gear Recovery Project retrieved more than 60 tons of gear from California's coastal ocean, and collected more than 1,400 pounds of recreational gear from public fishing piers from Santa Cruz to Imperial Beach (SeaDoc Society 2017). From 2001 to 2006, 31.1% of the reported cases of injured California brown pelicans at five California wildlife rehabilitation centers were fishing gear-related, while 11.1% of injured gull cases and 2.9% of injured California sea lion cases were fishing gear-related (Kaplan Dau et al. 2009).

In 2016, California generated approximately 76.5 million tons of waste, 35.2 million tons (~46%) of which were disposed in landfills, and another 7.5 million tons (~10%) of which went to disposal-related activities such as beneficial reuse at solid waste landfills and waste to energy conversion (CalRecycle 2017b). This means that California had a disposal rate of 6.0 pounds of trash per resident per day in 2016 (CalRecycle 2017b). Roughly 24.5 million tons (~32%) of the total trash produced in 2016 were diverted through source reduction and recycling, and another 9.2 million tons (~12%) were diverted through composting and mulching (CalRecycle 2017b). Overall, about 56% of California's waste went to disposal or disposal-related activities and about 44% was diverted through source reduction, recycling, and composting in 2016 (CalRecycle 2017b). Though diversion has come a long way in 20 years, over the last three years, California's source reduction, composting, and recycling rate has declined, from 50% in 2014, to 47% in 2015, and now to 44% in 2016 (CalRecycle 2017b) (see Fig. 2 for statewide disposal and recycling from 2010 to 2016). Through AB 341, California has declared a goal that by 2020, 75% of the solid waste generated in the state should be source reduced, recycled, or composted (as compared to 1990-2010 waste generation levels³). This translates to a reduction in per capita disposal from the current 6.0 pounds per person per day to 2.7 pounds per person per day in 2020 (CalRecycle 2017b).

³ AB 341 requires that 1990-2010 waste generation levels (10.7 pounds per person per day) be used as baseline data. The amount of total waste generated in California in a year is estimated by multiplying the State's population in that year by the 1990-2010 per person baseline. Source reduction is also calculated using these baseline data.

Statewide disposal and recycling, 2010-2016

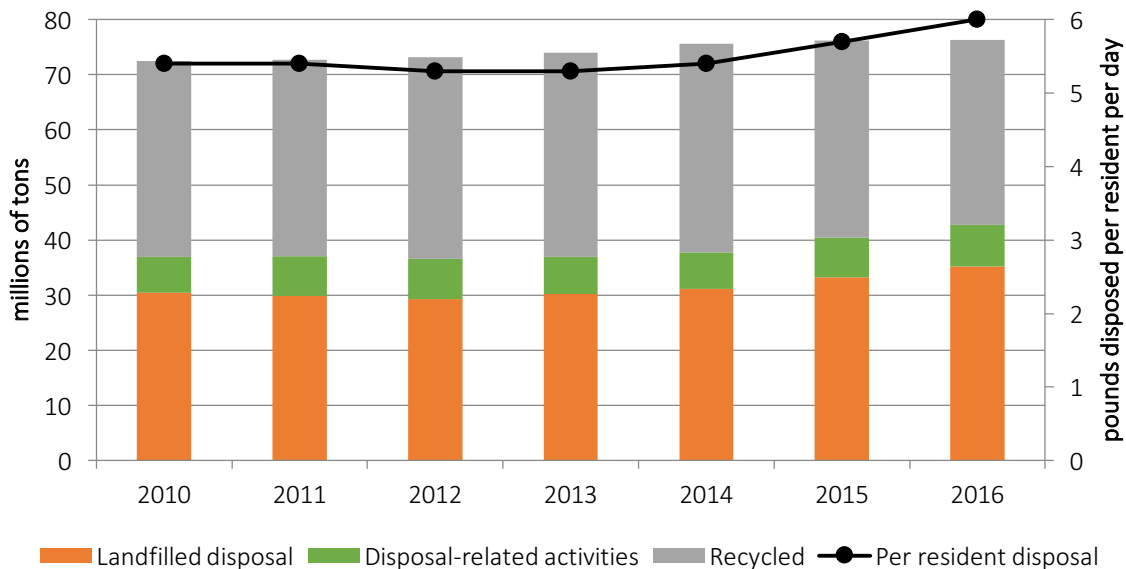


Fig.2. Amount of waste disposed and recycled in California, from 2010 to 2016. Included in this figure are estimates of the amount of waste disposed in landfills, the amount of waste managed through disposal-related activities, and the amount of waste recycled (which includes source reduction, recycling, and composting) every year in millions of tons (left axis). Also shown is the per resident disposal rate (pounds per resident per day) for each year (right axis). Figure adapted from CalRecycle's webpage "California's Statewide Recycling Rate" (CalRecycle 2017a).

California currently estimates the amount of waste that is source reduced and recycled by subtracting the quantities of waste disposed in landfills and through other disposal-related activities, and the quantities of waste that is managed through composting and mulching, from the estimated total amount of waste generated in the State (CalRecycle 2017b). This method of calculation assumes that all waste that is not disposed is source-reduced or recycled (CalRecycle 2017b). There is currently no way to know how much of California's waste ends up in the environment and becomes marine debris every year. However, Jambeck et al. (2015) estimated that in 2010, the United States had 0.25-1 million metric tons of mismanaged plastic waste available to enter the oceans, based on waste generated by populations within 50 km of the coast.

Ocean litter costs Californians money. California communities spend more than \$428 million annually to cleanup and control ocean litter through waterway and beach cleanup, street sweeping, installation of stormwater capture devices, storm drain cleaning and maintenance, manual litter cleanup, and public education (Stickel et al. 2013). From July 2012 to June 2016, Adopt-A-Highway participants removed over 77,000 cubic yards of litter that may have otherwise ended up in the ocean, a service valued at \$18 million annually (Caltrans 2017). Orange County, California residents go out of their way to avoid trash-littered beaches, spending extra time and money in order to visit a cleaner beach or engage in other recreational activities; it is estimated that removing 100% of the marine debris on Orange County beaches could save California residents \$148 million during the three months of summer (Leggett et al. 2014). There

are no known estimates of the costs of ocean litter to California’s tourism, fishing, or aquaculture industries.

2008 Strategy, An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter, Update

Recognizing the serious threats of ocean litter to communities, the economy, and the environment, and the immediate need for decisive action in California, the California Ocean Protection Council (OPC) adopted a resolution on “Reducing and Preventing Marine Debris” in 2007. In 2008, the OPC initiated a steering committee to publish an Implementation Strategy, which outlined three Priority Actions and 13 other Actions for addressing marine debris in the State. This Strategy was designed to provide a pathway to implement the recommendations in the OPC Resolution. The three Priority Actions were as follows:

1. Implement a producer take-back (EPR) program for convenience food packaging.
2. Prohibit single-use products that pose significant ocean litter impacts where a feasible less damaging alternative is available. Products specifically called out included polystyrene food packing and plastic bags.
3. Assess fees on commonly littered items.

Since the original Strategy was developed, many of the actions described in the document have either been accomplished or are in progress (see the box below titled “Status of Actions in the 2008 OPC Strategy to Reduce and Prevent Ocean Litter”). In some cases, the State’s regulatory or agency landscape has changed. For example, some items that were listed out separately in the Strategy are now being addressed under a single program, but there may be elements of those items that still need to be addressed. For instance, separate actions focused on minimizing toxics in packaging and developing sustainable alternatives are now jointly addressed by the California Department of Toxic Substances Control’s (DTSC’s) Safer Consumer Products Program, which is tasked with examining product-chemical combinations that may have negative impacts on human health and the environment, and requiring that manufacturers of priority products perform an alternatives analysis to determine whether such products can be made without the chemical of concern (DTSC 2013). In other cases, our understanding of the ocean litter problem has changed considerably since 2008. For example, the examination of microplastics’ impacts on marine life and their interaction with persistent organic pollutants has increased dramatically over the last decade (Ryan 2015). Thus, some of the actions that were outlined in the 2008 Strategy may not cover issues of emerging concern (such as microplastics and microfibers) or may no longer be the best way to go about addressing ocean litter.

The 2018 Strategy aims to reexamine the issue of ocean litter in California, and outline action items for preventing and reducing marine debris over the next six years, in light of the needs that have been identified, the knowledge that has been gained, and the advances that have been made over the last decade.

Status of Actions in the 2008 OPC Strategy to Reduce and Prevent Ocean Litter

Below is a brief summary of the progress that has been made on the Action Items included in the 2008 Strategy. Some of these Action Items were written in an open-ended or ongoing way. This makes it somewhat difficult to determine whether an action is “complete.” See the Comments column for more detail on the status of each Action.

Strategy Action	Update	Comments
Priority Action 1: Implement a producer take-back (EPR) program for convenience food packaging.	In Progress	CalRecycle is developing a comprehensive, statewide framework for managing all packaging that provides flexibility to apply different policy tools. Extended producer responsibility is one of those policy tools.
Priority Action 2: Prohibit Single-Use Products that pose significant ocean litter impacts where a feasible less damaging alternative is available. <ul style="list-style-type: none"> • Polystyrene food packaging prohibition • Plastic Bag Fee 	See below under each action	See below under each action
	In Progress	Local polystyrene bans have passed, but a statewide ban has not.
	Complete	The voters ratified the statewide bag ban in November 2016.
Priority Action 3: Assess fees on commonly littered items	In Progress	Local jurisdictions have passed litter fees, but this has not been implemented on a statewide level.
Minimize Toxics in Packaging: Determine which plastic additives threaten human health and the marine environment, educate the public, and prepare a plan for a possible prohibition.	In Progress; but continuing opportunities for further action or projects	Initial OPC-funded project is complete. DTSC now has a Safer Consumer Products program that examines product-chemical combinations that may impact human health or the environment.
Develop Alternative Products and Promote Sustainable Alternatives	In Progress	This action is currently part of the Safer Consumer Products Program. The regulations require that manufacturers perform an alternatives analysis to determine whether they could make their product without the chemical of concern.
Increase Enforcement of Pre-Production Plastic Laws	Complete	The Water Board has trained their enforcement staff and industrial permit staff on how to correctly implement the law banning release of pre-production plastic pellets.

Strategy Action	Update	Comments
Increase Enforcement of Anti-Litter Laws	In Progress	This is an ongoing activity. Some local jurisdictions have increased litter fines in problem areas (like main beach in Santa Cruz).
Public Education: Coordinate an education and outreach campaign	Complete	The OPC has partnered with NOAA on the Thank You Ocean campaign, which includes a lot of public outreach on marine debris.
Public Education: Direct state funds for litter education to the Environmental Education Initiative	Incomplete	This remains incomplete, the Environment Education Initiative provides model curriculum to teachers on environmental issues.
Engaging the Public: Develop an ocean litter data card to be used by Adopt-A-Beach Volunteers through the year, and an online database to house data.	Complete	The West Coast Marine Debris Partnership has developed a standardized data card and database for beach cleanup efforts.
Engaging the Public: Develop an Adopt-A-Beach Advisory Committee and work with local beach managers to provide necessary support for Adopt-A-Beach efforts.	Complete	The Adopt-A-Beach program is supported and organized on a county-by-county basis. (You can find more information on the Coastal Commission website).
Ensure municipalities prevent litter from entering the storm drain system	Complete, but continuing opportunities for actions with implementation.	This action was completed through adoption of the statewide trash policy; we are now in the process of implementing the policy.
Increase lost fishing gear cleanup by creating a deposit program on fishing gear, and conduct outreach to the fishing community and publicize Sea Doc Society's hotline	Complete, but continuing opportunities for further action or projects	Legislative action has created a program that requires owners to pay for lost gear for some fisheries. The OPC has funded the Sea Doc Society to perform cleanups of fishing gear off the coast, and their hotline is available to report lost gear.
Work with the West Coast Governor's Agreement participants and invite the participation of Alaska, Hawaii, British Columbia, Baja California, and Baja California Sur	Complete	This action evolved into an Action Team under the West Coast Governor's agreement, and now into the West Coast Marine Debris Partnership, which includes British Columbia.

2018 CALIFORNIA OCEAN LITTER PREVENTION STRATEGY: ADDRESSING MARINE DEBRIS FROM SOURCE TO SEA

2018 Strategy Update Process

In 2016, the Ocean Protection Council and the NOAA Marine Debris Program initiated a partnership with California Sea Grant to update the 2008 Strategy. The 2018 Strategy planning team was rounded out with the participation of the California Coastal Commission and Surfrider Foundation. Representatives from organizations active in conservation, research, waste reduction, and education, as well as industry, tribes, local government, and State and Federal agencies were invited to participate in two Workshops in 2017 aimed at generating action items that would help solve the problem of ocean litter in California. All of the ideas included in this Strategy document were identified by Workshop participants.

The first of the two Workshops, held in May 2017 in Oakland, California, allowed participants to brainstorm and discuss potential solutions to the presence of (and problems associated with) ocean litter in California. One hundred and forty-eight action items to reduce and prevent ocean litter were identified during this Workshop. Following the first Workshop, duplicative and similar ideas generated by the participants were condensed and organized into a draft Strategy by the planning team, which was then circulated among the Workshop participants and posted on OPC's website for public review and comment. The second of the two Workshops, held in November 2017 in La Jolla, California, allowed for further discussion and refinement of the Strategy's Action Items, and gave organizations the opportunity to commit to taking a role in implementing proposed actions. Each Workshop was attended by approximately 50 participants. See OPC's website for links to materials from the two Workshops (agendas, participant lists) and a complete list of ideas for action items generated by Workshop #1 participants.

Following the second Workshop, the planning team revised the Strategy, and then posted it on OPC's website and circulated it to Workshop participants for a second round of public comment (January to February 2018). Final revisions to the Strategy were made based on this second round of public comment.

Throughout the process of developing the 2018 Strategy, stakeholders expressed interest in OPC articulating its priorities for ocean litter. OPC's proposed priorities to address ocean litter are laid out in the section of the document titled "California Ocean Protection Council Priorities to Address Ocean Litter."

Structure of Document

The 2018 *California Ocean Litter Prevention Strategy: Addressing Marine Debris from Source to Sea* includes a section for OPC priorities to address ocean litter and a section for stakeholder-

identified Goals, Objectives and Actions to address ocean litter. The OPC priorities section outlines the work OPC will take on over the next six years, and these priorities complement the Goals, Objectives and Actions identified by the stakeholders. OPC priorities are structured into three goals:

1. **OPC Goal 1 – Land-based sources of ocean litter:** Protect marine ecosystems and the communities that rely on them by promoting policies to prevent litter from reaching the ocean.
2. **OPC Goal 2 – Microplastics and Microfibers:** Increase understanding of the scale and impact of microplastics and microfibers on the marine environment and develop solutions to address them.
3. **OPC Goal 3 – Fishing and Aquaculture Gear:** Reduce fishing and aquaculture-related debris in the ocean.

The stakeholder section of the Strategy is structured around six Goals, five of which are dedicated to land-based litter, and one of which is dedicated to ocean-based debris. Nested under each of these Goals are Objectives, which outline approaches for achieving the Goals. Each Objective includes specific Action Items, concrete and measurable tasks that stakeholders can implement to contribute to an Objective and prevent or reduce ocean litter.

Broadly broken into land- and ocean-based litter categories, the six Goals of this Strategy are as follows:

Land-based Ocean Litter

1. **Goal 1:** Reduce the use of common ocean litter items through mandates and incentives targeting public institutions and businesses.
2. **Goal 2:** Reduce the prevalence of common ocean litter items through changes in product production, design, and management.
3. **Goal 3:** Improve waste management and interception of litter on land before it enters the ocean.
4. **Goal 4:** Conduct and communicate research on existing and emerging issues related to land-based ocean litter.
5. **Goal 5:** Generate behavior change by educating and engaging communities and individuals to reduce ocean litter.

Ocean-based Marine Debris

6. **Goal 6:** Reduce ocean-based debris at its source, and maximize the efficiency of control and cleanup of ocean-based debris.

The 2018 Strategy document includes the following:

- **6 Goals:** The first five Goals are dedicated to land-based ocean litter, while the last Goal is dedicated to ocean-based debris. These Goals focus on source reduction, research, behavior change, control, and cleanup.
- **17 Objectives:** Nested under each Goal, these Objectives are approaches that may be taken to achieve a Goal.
- **60 Action Items:** Listed under each Objective, Action Items are concrete and measurable tasks that stakeholders can implement to contribute to an Objective and prevent or reduce ocean litter.

Scope of Document

Data-driven Goals, Objectives, and Action Items

The Goals, Objectives, and Action Items included in this document reflect the need to base actions taken to address ocean litter in California on the most accurate available data. The term “common ocean litter items” is used frequently throughout the document to refer to the most prevalent ocean litter items found in California’s waterways and ocean waters, and on its coastlines. The use of this terminology directs stakeholders to focus on the debris items that are most abundant in the environment, while also allowing for flexibility and adaptability, as the most common ocean litter items may change over time.

While the need for a comprehensive, statewide litter dataset is identified in the Action Item tables below (see Action Item 4.1.4), for now, this document relies on Coastal Cleanup Day data to define the most common ocean litter items found in the State (see Table 1 for the list of the top 10 litter items removed from California’s coastlines and inland waterways on Coastal Cleanup Day from 1989-2014). Depending on the Action Item, stakeholders may also use more

Table 1. Top ten litter items removed on California Coastal Cleanup Day, 1989-2014 (California Coastal Commission 2017).

Litter Item	Count	Percentage
Cigarettes/Cigarette filters	6,992,106	37.76%
Food wrappers/Containers	1,940,013	10.48%
Caps/Lids	1,619,071	8.74%
Bags (paper and plastic)	1,462,726	7.90%
Cups/Plates/Utensils	1,014,229	5.48%
Straws/Stirrers	736,595	3.98%
Glass beverage bottles	600,871	3.24%
Plastic beverage bottles	475,799	2.57%
Beverage cans	455,433	2.46%
Construction material	330,711	1.79%

detailed, localized datasets, when available, to determine common ocean litter items in their region or to help define the scope of their work.

Focus on Land-based Litter and Lost Fishing and Aquaculture Gear

Five out of six of the Strategy's stakeholder Goals (as well as the first OPC Goal) focus on land-based litter, while the final Goal in the Strategy focuses on ocean-based debris, specifically lost fishing and aquaculture gear. Land-based litter receives the most attention in the 2018 Strategy because most of the debris found in the ocean is thought to be land-based, and a large portion of the marine debris community in California focuses on land-based litter. The Goal dedicated to ocean-based debris focuses almost entirely on lost fishing and aquaculture gear due to the fact that the participating stakeholders were mainly from the fishing and aquaculture industries. Furthermore, it was agreed that because of the large scope of ocean-based debris and the complexities involved in international regulations⁴, a more significant impact could be made by narrowing the scope to lost fishing and aquaculture gear.

Emphasis on Source Reduction and Prevention

This document prioritizes source reduction Goals and Action Items, as agencies and experts agree that source reduction is the most effective tactic to address ocean litter. Source reduction, or waste prevention, refers to practices that reduce the amount of materials entering the waste stream, including changes in the design, manufacture, purchase or use of materials (EPA 2016). Preventing waste in the first place through initiatives such as product redesign, minimizing the use of single use items⁵, and reusing materials is a better method for reducing waste as it decreases the amount of litter to control, capture, and dispose. This method is considered by the US EPA to be the most preferred method for dealing with waste (EPA 2017).

Furthermore, source reduction creates significant opportunities for industry to take initiative and responsibility for the products they produce. By altering their production, operation, and raw material use, industries can prevent litter at the source. Institutions, businesses, and consumers can play a role in source reduction too. For example, the State is the single largest purchasing entity in California, purchasing billions of dollars of products each year (Suh et al. 2017). As a result, the State can have a significant impact on, and set a good example for, preventing and reducing waste at the source through procurement policies that prioritize reusable items. Institutions and businesses can also benefit from these procurement changes, as they often lead to reduced costs associated with the purchase of disposable items, and the transportation, disposal, or recycling of waste (Maryland Department of the Environment 2017, Clean Water Action 2017). Consumers can contribute to source reduction by making changes in their own purchasing habits and supporting businesses that exhibit sustainable purchasing practices.

⁴ One example of an international regulation that deals with ocean-based debris is the [International Convention for the Prevention of Pollution from Ships](#), MARPOL, adopted in 1973, the main international convention covering pollution of the marine environment from operational or accidental discharge from ships.

⁵ The term "single use items" is used here to mean items that are conventionally disposed of after a single use and that persist in the environment.

Waste management and ocean litter are inextricably linked. This Strategy is intended to be a complementary document to other waste prevention and management strategies, with a focus on the issue of ocean litter.

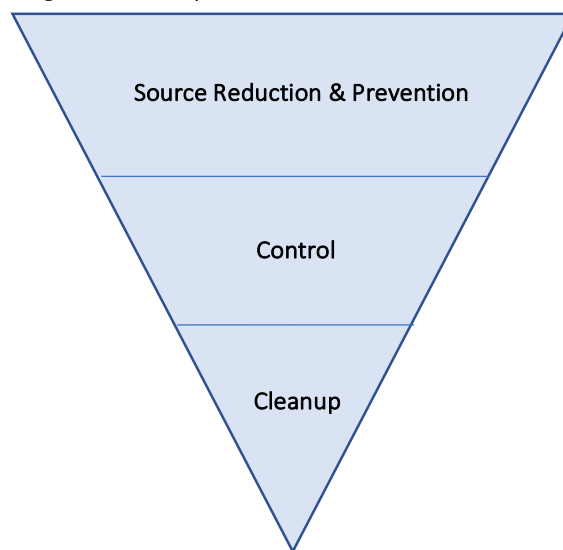
Control and Cleanup

Controlling and cleaning up litter in the environment is important, but less efficient and effective in the longer term compared to source reduction and prevention. Examples of control and cleanup methods include: beach and waterway cleanups, street sweeping, stormwater capture devices, storm drain cleaning and maintenance, manual litter cleanup, and outreach and education to prevent littering. The public cost burden of these efforts makes a compelling argument for accelerating the search for effective strategies to reduce and prevent trash streams that enter our waterways and contribute to ocean litter.

In 2015, the State Water Resources Control Board (State Water Board) adopted a statewide water quality objective aimed at reducing the amount of trash that finds its way into rivers, lakes, and the ocean by prohibiting the discharge of trash into state surface waters; the water quality objective is commonly referred to as the “Trash Amendments.” These Trash Amendments provide statewide consistency in efforts to reduce trash in state waters, and use a land use-based compliance approach that targets high trash generating areas such as high density residential, industrial, commercial, mixed urban and public transportation land uses. This program allows flexibility for local governments to come up with compliance approaches that work best for them to effectively eliminate trash discharge from their stormwater systems. Local governments may choose to increase trash capture in stormwater runoff, or a use combination of source reduction approaches that are equivalent to full trash capture. This Strategy provides a suite of source reduction approaches that may be cost-effective and useful to local governments as they develop their compliance approach for the Trash Amendments.

California also has a robust and successful network for implementing cleanups. From local nonprofits to municipalities, beach cleanups are held on a regular basis throughout the state. California Coastal Cleanup Day is a notable program held once a year, where approximately 60,000 volunteers pick up hundreds of thousands of pounds of trash and recyclables from beaches, lakes, and waterways. In 2016, 59,154 volunteers participated in California Coastal Cleanup Day and collected 710,781 pounds of litter (California Coastal Commission 2016). California Coastal Cleanup Day is a part of International Coastal Cleanup Day, the world’s biggest effort to clean up ocean litter. Annually, nearly 12 million people volunteer to pick up litter in their communities (Ocean Conservancy 2017).

Fig. 3. Hierarchy of Efforts to Address Ocean Litter



California organizations also coordinate lost fishing gear cleanups on and off the water. For example, the California Lost Fishing Gear Recovery Project, administered by the University of California, Davis' School of Veterinary Medicine and the Wildlife Health Center, encourages ocean users to report the presence of lost gear, and hires fishermen and experienced commercial SCUBA divers (depending on the gear type) to remove gear from nearshore waters in a safe and environmentally sensitive manner. Between 2006 and 2012, this program has retrieved more than 60 tons of gear from California's coastal ocean, primarily in Southern California, including around the California Channel Islands (Santa Rosa, Santa Cruz, Anacapa and Santa Catalina) (SeaDoc Society 2017).

Strategy Implementation

As described above, the scope and focus of this document were largely determined by the stakeholders involved in the two Workshops held in 2017. Attendees of the second Workshop devised the following Strategy implementation scheme:

Six-year timeframe: The operational cycle of this document is six years (2018-2024). Stakeholders believed six years was an appropriate timeframe for the Strategy, as it provides ample time for Action Item implementation, while also allowing for evaluation of progress and reevaluation of Strategy Goals and Objectives, if needed, throughout the process.

In-person check-ins every two years: Every two years, OPC and the NOAA MDP will help to organize in-person meetings amongst stakeholders to discuss progress made on Strategy implementation, and to reevaluate the Strategy's Goals and Objectives, if necessary.

Conference calls/webinars and newsletters every six months: Every six months, OPC and the NOAA MDP will organize and facilitate a webinar to allow stakeholders to discuss and share lessons learned from the Strategy implementation process. OPC and NOAA MDP will also create a newsletter to share updates on Action Item progress with stakeholders and the public; this newsletter will be populated by information provided by the organizations involved in Action Item implementation. OPC will also provide updates on its progress with implementing OPC Priorities via these webinars and newsletters annually. The form that these six-month check-ins take may change over the course of the document's six-year timeframe, depending on what stakeholders feel is most useful to facilitate communication and collaboration.

Action Item timelines and metrics: Stakeholders will form working groups around each Action Item, and will be responsible for devising implementation plans with rough timelines and metrics for each Action Item by the first six-month check-in webinar (which will be held in late 2018). OPC and NOAA MDP will provide some guidance and some ideas on how to set metrics and timelines for Action Items.

CALIFORNIA OCEAN PROTECTION COUNCIL PRIORITIES TO ADDRESS OCEAN LITTER

The ocean is an important part of California's economy, culture, and quality of life. California's ocean economy accounts for \$41.9 billion in gross domestic product (NOAA ENOW 2014), and provides over 500,000 jobs. Sixty-eight percent of Californians live in a coastal county (NOAA OCM 2015), and the State's beaches are iconic for both tourism and recreation. Despite the large scale of the ocean, human impacts, through changes in land use and pollution, may reduce the benefits the ocean provides. Many ocean pollution problems originate on land, and in some cases, far inland from the coast. These pollution problems can range from nutrients, to contaminants of emerging concern, to ocean litter.

Ocean litter, like many other forms of pollution, is primarily land-based. Unlike other forms of pollution, ocean litter is very visible and its impacts are evident to stakeholders and the public. Ocean litter pollutes beaches and waterways, entangles marine life, smothers sensitive habitat, and is ingested by marine organisms. For more information on the impacts of ocean litter, please see "The Global Problem of Ocean Litter" and "Ocean Litter and Waste Generation" in the Background section.

Recognizing the many benefits the ocean provides to Californians and the need to protect California's coastal and ocean resources, the state legislature passed the California Ocean Protection Act (COPA) in 2004. COPA acknowledges the interconnectedness of the land and sea, and tasks OPC with ensuring that California maintains a healthy, resilient and productive ocean and coastal ecosystem for the benefit of current and future generations. OPC works in four ways to protect ocean and coastal ecosystems, as mandated by COPA. OPC recommends and implements policy, leads and promotes coordination among state agencies, seeks and leverages funding for catalytic and innovative projects, and informs government decision making with the best available science.

OPC has maintained a long-standing commitment to protecting ocean health through addressing ocean litter. In 2007, OPC adopted a resolution called "Reducing and Preventing Marine Debris" which outlined 13 top priority solutions to address marine debris. In 2008, OPC initiated a steering committee to publish an Implementation Strategy, which outlined three Priority Actions and 13 other Actions for addressing marine debris in the State. The 2008 Strategy was designed to provide a pathway to implement the recommendations in OPC Resolution. The three Priority Actions from 2008 were:

1. Implement a producer take-back (EPR) program for convenience food packaging.
2. Prohibit single-use products that pose significant ocean litter impacts where a feasible less damaging alternative is available. Products specifically called out included polystyrene food packaging and plastic bags.
3. Assess fees on commonly littered items.

As mentioned in the Background section, since the original Strategy was developed, many of the actions described in the document have either been accomplished or are in progress. For example, in 2016 state voters ratified the plastic bag ban, and numerous local municipalities have passed ordinances restricting the use of expanded polystyrene in foodware. Throughout the process of developing the 2018 Strategy, stakeholders expressed interest in having OPC articulate its priorities for ocean litter. OPC's proposed priorities to address ocean litter are laid out in this section. OPC's priorities can be divided into three broad categories: land-based sources of ocean litter, microplastics and microfibers, and fishing and aquaculture gear.

- **Land-based sources of ocean litter:** Land-based ocean litter makes up 80% of the litter found in the ocean. Land-based ocean litter goes on to entangle marine wildlife and pollute California's coastline. California communities spend more than \$428 million annually to cleanup and control ocean litter (Stickel et al. 2013).
- **Microplastics and Microfibers:** Microplastics and microfibers are increasingly found in the marine environment and are ingested by marine organisms, including seafood species. These plastics are emerging as a concern for ocean health because they can physically block the digestive tracts of marine organisms, and chemicals associated with the plastic may be absorbed by marine organisms through ingestion.
- **Fishing and Aquaculture Gear:** Fishing and aquaculture gear, along with other ocean-based sources of litter, make up 20% of the litter found in the ocean. These types of ocean litter are particularly harmful to marine life, and prevention and removal of lost gear will benefit coastal communities and the ocean economy.

As a state agency, OPC works to advance and protect the interests of the public when addressing ocean litter. This means developing and recommending policy that reduces the negative costs associated with ocean litter. Most of these costs are currently borne by the public through funding cleanup and capture. OPC prioritizes source reduction to prevent ocean litter because it is cost-effective and reduces cost burdens on the public. Many policies can be used to address common ocean litter items, ranging from voluntary to mandatory. OPC is open to using all the policy options available, as long as they are shown to effectively and substantially reduce ocean litter. The state has a number of initiatives and programs that will complement OPC's California Ocean Litter Strategy. OPC has coordinated with our agency partners throughout the development of this Strategy and the OPC's priorities. A brief list summarizing these agencies' programs and initiatives is below:

- State Water Resources Control Board: Trash Amendments Implementation
- CalRecycle: Packaging Reform Process
- California Department to Toxic Substances Control: Safer Consumer Products Program
- California Coastal Commission: Energy, Ocean Resources, and Federal Consistency Program, and Public Education Program

- Fish and Game Commission
- California Department of Fish and Wildlife: Aquaculture Program

Implementation of OPC priorities will occur over the next six years. Stakeholders will receive updates on OPC’s progress to implement these priorities at least annually as part of the California Ocean Litter Strategy Implementation process. Please see the Strategy Implementation section for more details on the implementation process. Some of the priority actions outlined below are particularly timely, and OPC staff has assigned timelines to them. Other priority actions are written in a broad way to allow for adaptation over the next six years, and do not have specific timelines called out at this time.

OPC GOAL 1 – LAND-BASED SOURCES OF OCEAN LITTER: Protect marine ecosystems and the communities that rely on them by promoting policies to prevent litter from reaching the ocean.

Priority Objective: Advance source reduction efforts through policy, research, and funding to prevent the production and consumption of common ocean litter items by supporting the following actions:

Policy Implementation: Develop and recommend a variety of policy tools to prevent the production and consumption of common ocean litter items at their source, including single-use food and beverage packaging and cigarette filters. Examples of actions to support policy implementation include, but are not limited to:

1. Promote changes by 2020 in state purchasing and service contracts, to reduce the state’s reliance on single-use foodware that typically becomes ocean litter.
2. Recommend state and local policies that encourage consumers to bring their own reusable food and beverage containers by charging for disposable packaging use for “to go” food service by 2024.
3. Promote comprehensive waste management approaches to prevent the production of common ocean litter items through CalRecycle’s packaging reform efforts, and explore methods to share responsibility between producers and the public to fund the cleanup of beaches and inland waterways that are littered with these products.
4. Support policies that reduce expanded polystyrene litter. OPC will support CalRecycle’s inclusion of expanded polystyrene as a priority product to be addressed in the packaging reform framework and recommend the prohibition of expanded polystyrene⁶ in foodware.

⁶ OPC previously prioritized a polystyrene food packaging ban in 2008. Expanded polystyrene in food packaging should be addressed for a number of reasons: Expanded polystyrene breaks apart into tiny pieces quickly once it reaches the environment, it is easily carried by wind, and mixes into beach sand and sediment. Although expanded polystyrene is technically recyclable expanded polystyrene in use as food service ware is often too contaminated for the recycling stream.

5. Convene and foster innovative partnerships, use funding mechanisms, and recommend policies to redesign common ocean litter items such as connecting bottle caps to bottles.
6. Convene a working group to evaluate a ban on cigarette filters in California by 2020. The working group will investigate research and reports on cigarette filters, and the extent to which they impact human health. If the working group finds that cigarette filters provide no health protections to smokers, then OPC may make recommendations to the legislature to ban cigarette filters.

Research and Funding: Use research and funding to address knowledge gaps and better target policy efforts; examples of actions under this category include, but are not limited to:

1. Fund assessments of policy effectiveness to determine whether the policies are acting as intended and what, if any, changes need to be made to increase effectiveness. If local policies or ordinances are demonstrated to be effective, consider recommending for statewide implementation.
2. Fund a report synthesizing lessons learned from waste management policies and tools implementation in other countries, including policy recommendations for California, with a focus on source reduction by 2020.
3. Fund research and partner with the Department of Toxic Substances Control to address chemical additives that are commonly associated with products found in ocean litter to determine their environmental impacts. Chemical additives may include, but will not be limited to fluorinated compounds, plasticizers, and antimicrobials.
4. Fund a report compiling and synthesizing the use of plastics in agricultural practices, and the extent to which this use of plastics may contribute to ocean litter by 2023.
5. Fund innovative projects and programs that reduce the production and consumption of common ocean litter items, such as a piloting the use of a reusable “to go” container exchange at food service providers.

OPC GOAL 2 – MICROPLASTICS AND MICROFIBERS: Increase understanding of the scale and impact of microplastics and microfibers on the marine environment and develop solutions to address them.

Priority Objective: Advance research on the extent and impact of microplastics and microfibers in source waters and the ocean, and assist in the development of technological solutions to reduce their prevalence in aquatic environments through the following actions:

1. Fund the development and validation of standardized monitoring methods in California to assess the concentration and flux of microplastics by 2021. Methods are needed for

several different environments where microplastics are found, including: wastewater effluent, ambient waters, stormwater, marine sediments, and tissues of fish and bivalves.

2. Once reliable monitoring methods have been established, convene scientists and experts to develop a comprehensive research plan by 2024 to characterize microplastics' sources, pathways, ambient concentrations, risk assessments, and impacts. Research efforts may include the following:
 - a. Quantify the concentration at which microplastics cause ecological impacts to marine life and ocean health at the population and community levels, as well as impacts to individual organisms' biology;
 - b. Improve the understanding of the sources and pathways associated with microplastic pollution, including polymer identification;
 - c. Determine whether additives associated with microfibers may cause impacts to the marine environment, research will be based on best available data and the development of studies will include relevant stakeholders;
 - d. Determine whether there is a need to address textiles as a source of microplastics, and if so determine whether reformulated textiles can significantly reduce the loading of microplastics into the environment; research will be based on best available data and the development of studies will include relevant stakeholders.
 - e. If wastewater treatment plant loadings of microplastics are found to have a significant impact on the environment, research the feasibility and effectiveness of technical solutions for microfibers in wastewater treatment plants, washing machines, and other points in the wastewater management system, including source control.

OPC GOAL 3 – FISHING AND AQUACULTURE GEAR: Reduce fishing and aquaculture-related debris in the ocean⁷.

Priority Objective: Promote improved fishing and aquaculture gear management and sustainable innovation to reduce the potential for lost gear; remove lost gear and legacy infrastructure from the ocean by pursuing the following actions:

1. Provide best-available science and information to the California Department of Fish and Wildlife (CDFW) and the California Fish and Game Commission (FGC) as they work to develop improved fishing and aquaculture gear management, and maintain two-way

⁷ Although there are many ocean-based sources of debris in the ocean, the scope of the California Ocean Litter Strategy focuses on fishing and aquaculture gear, and OPC Priorities reflect this scope.

information exchange between the CDFW, FGC, and OPC for data sharing and interagency staff coordination.

2. Promote fixed-gear best practices, including how to minimize losing traps.
3. Promote the development and implementation of regulations requiring best management practice plans for shellfish aquaculture in California by 2020, in partnership with CDFW, FGC, and the California Coastal Commission. The best management practice plans should reduce the potential for loss of aquaculture gear and require the cleanup and recovery of lost gear.
4. Develop fishery-funded gear retrieval programs through industry education and collaborations with non-governmental organizations, port and harbor districts and associations, and other partners to effectively implement existing and developing gear retrieval programs.
5. Fund sustainable innovation in fishing and aquaculture gear to reduce the potential for lost gear, including new technologies, and ensure that any new and effective fishing and aquaculture gear innovation is an allowable technology in legislation and regulations.
6. Recommend the development and implementation of regulatory tools to allow for retrieval of lost gear or traps that belong to other fishermen.
7. Fund removal of fishing gear and abandoned aquaculture materials, disused creosote pilings, and illegal artificial reefs, where liable owners and responsible parties cannot be identified.

STAKEHOLDER GOALS, OBJECTIVES, AND ACTION ITEMS

In the tables below, Action Items to prevent and reduce ocean litter are grouped under broader Goals and Objectives. Definitions of the information in each column are as follows:

- **Action Items:** Outlines the task that will be implemented in order to prevent or reduce ocean litter.
- **Lead & Partner Organizations:** Identifies the organization(s) or individual(s) that will implement the Action Item.
 - **Lead Organizations** are **bolded** and listed alphabetically, before Partner Organizations, next to each Action Item. Lead Organizations are committed to implementing an Action Item, given organizational and funding constraints. Lead Organizations will serve as the point of contact for NOAA and OPC for progress reports and check-ins throughout the Strategy's six-year timeframe, and will take a leadership role in communicating and coordinating with other collaborators/Partner Organizations on the Action Item.

- **Partner Organizations** are unbolded and listed alphabetically, after Lead Organizations, next to each Action Item. Partner Organizations will serve a supporting role in implementing an Action Item, in collaboration with Lead and other Partner Organizations.

LAND-BASED OCEAN LITTER

GOAL 1. Reduce the use of common ocean litter items through mandates and incentives targeting public institutions and businesses.

Objective 1.1. Prohibit or discourage common ocean litter items in public institutions, retail, and food service establishments through government policies or mandates.	
Action Items	Lead & Partner Organizations
1.1.1. Pass and implement policies that prohibit or discourage common ocean litter items at the local level ⁸ and consider these policies for effectiveness assessment as described under Objective 4.4.	Californians Against Waste, Clean Water Action/Clean Water Fund, Plastic Recycling Corporation of California (PRCC), Surfrider Foundation, UPSTREAM
1.1.2. Pass and implement legislation that prohibits or discourages common ocean litter items at the state level and consider these policies for effectiveness assessment as described under Objective 4.4.	Californians Against Waste, Clean Water Action/Clean Water Fund, Plastic Recycling Corporation of California (PRCC), Surfrider Foundation, UPSTREAM
1.1.3. Expand the statewide bag ban to apply to retail stores, restaurants, and food delivery, and amend the State’s criteria for reusable bags to exclude bags made from plastic film ⁹ .	Californians Against Waste, Plastic Recycling Corporation of California (PRCC), Surfrider Foundation
1.1.4. Promote reusable and refillable food and beverage packaging in the state bottle bill, and state and local packaging policies.	
1.1.5. Change procurement of common ocean litter items on UC and CSU campuses, and share lessons learned with other learning institutions (e.g., community colleges, K-12).	Clean Water Action/Clean Water Fund, Surfrider Foundation

⁸ Examples of local policies include excess litter fee programs such as that implemented in Oakland, California (City of Oakland 2018), and local polystyrene food ware bans such as that implemented in San Francisco, California (San Francisco Department of the Environment 2016).

⁹ Currently, the State allows reusable grocery bags, as defined in SB 270 Chapter 5.3 Article 2, to be made from plastic film, as long as the bags meet a number of requirements, including being “capable of carrying 22 pounds over a distance of 175 feet for a minimum of 125 uses and be[ing] at least 2.25 mils thick, measured according to the American Society of Testing and Materials (ASTM) Standard D6988-13.” This Action Item follows the example set by the City and County of Honolulu, Hawai’i, which, in 2017, amended Oahu’s plastic bag ban so that by January 1, 2020, plastic film bags will no longer be considered reusable bags (Mattison 2017).

1.1.6. Change procurement to minimize the use of common ocean litter items in local and state government buildings and events, and share lessons learned with other public institutions (e.g., federal facilities, jails, hospitals).	Ocean Protection Council (OPC) , Californians Against Waste, Clean Water Action/Clean Water Fund, Surfrider Foundation, UPSTREAM
1.1.7. Require permits for new construction of dine-in restaurants to include dishwashing facilities on-site to accommodate reusable food ware.	Californians Against Waste, Clean Water Action/Clean Water Fund, UPSTREAM
1.1.8. Develop a toolkit with materials and strategies to share with local and out-of-state advocates to a) aid in the process of banning common ocean litter items, and b) to aid in the process of switching local governments and communities to reusable items.	Plastic Pollution Coalition, UPSTREAM , Institute for Geographic Information Science (IGISc) at SFSU
Objective 1.2. Incentivize institutions, businesses, and events to transition away from common ocean litter items.	
Action Items	Lead & Partner Organizations
1.2.1. Perform audits before and after institutions implement efforts to minimize the use of common ocean litter items.	Clean Water Action/Clean Water Fund
1.2.2. Incentivize businesses and corporations to transition to reusables (e.g., film industry craft services, corporate dining, water refill stations) through sharing case studies and demonstrating cost-savings.	Amcor Limited, Clean Water Action/Clean Water Fund, Surfrider Foundation, UPSTREAM
1.2.3. Promote certification for events (e.g., music festivals, concerts, sports competitions, film production) that achieve zero waste principles.	Clean Water Action/Clean Water Fund
1.2.4. Engage with companies that are already using alternative products and materials to help advocate for transition away from common ocean litter items.	Plastic Recycling Corporation of California (PRCC), Surfrider Foundation

GOAL 2. Reduce the prevalence of common ocean litter items through changes in product production, design, and management.

Objective 2.1. Support and promote extended producer responsibility (EPR) and other waste management strategies to reduce the generation of common ocean litter items, and create a mechanism for producers to fund common ocean litter item capture, cleanup, and recycling infrastructure.

Action Items	Lead & Partner Organizations
2.1.1. The Ocean Protection Council and other stakeholders will promote EPR as a policy to consider as part of CalRecycle’s Packaging Reform Effort, and support giving CalRecycle legislative authority to create mandatory packaging reform policies.	Ocean Protection Council (OPC) , Californians Against Waste, Plastic Recycling Corporation of California (PRCC), Save Our Shores, UPSTREAM
2.1.2. Create a report synthesizing lessons learned from waste management policy and tool implementation in other countries, including recommendations for California with a focus on source reduction.	UPSTREAM
2.1.3. Include performance measures in EPR programs for both prevention and recycling of common ocean litter items, with prevention being a higher priority.	Californians Against Waste, Plastic Recycling Corporation of California (PRCC), Save Our Shores, UPSTREAM
2.1.4. Ensure that all film and wrap plastics eligible for recycling (plasticfilmrecycling.org) are accepted at all drop-off locations (e.g., grocery stores), and enforce the recycling requirements that are part of the statewide bag ban ¹⁰ .	UPSTREAM
Objective 2.2. Support product redesign with the aim of preventing ocean litter through design changes and avoiding harmful substitutions¹¹.	
Action Items	Lead & Partner Organizations
2.2.1. Engage corporations in common ocean litter item redesign by implementing design challenges, and creating a venue for sharing innovative designs with brands and corporations.	Think Beyond Plastic , Amcor Limited, American Chemistry Council (ACC), Plastic Recycling Corporation of California (PRCC), UPSTREAM
2.2.2. Redesign and produce bottles with caps attached (“connect the cap”), and ensure that all components of these products are recyclable at all facilities in California.	American Chemistry Council (ACC), Californians Against Waste, Plastic Recycling Corporation of California (PRCC), Surfrider Foundation, Think Beyond Plastic, UPSTREAM

¹⁰ The statewide bag ban, SB 270 (Sections 42250-42257), requires stores that make plastic carryout bags available to their customers to establish at-store recycling programs that allow customers to return clean plastic carryout bags to stores to be recycled. This Action Item calls for the enforcement of the recycling requirements outlined in SB 270, as well as an expansion of the recycling programs established at stores to accept all film and wrap plastics eligible for recycling, as defined by plasticfilmrecycling.org (including bags used for produce, bulk goods, and other products, which, while not covered under SB 270, are often single-use plastic and end up in the environment).

¹¹ The term “harmful substitutions” is used here to mean: 1) products that may take the place of common ocean litter items and continue to contribute to the problem of ocean litter, rather than reduce ocean litter, and 2) products that may take the place of common ocean litter items, and contain components, additives, or contaminants that are detrimental to human health and/or the environment.

2.2.3. Redesign plastic products to be circular and entirely recyclable in California, through voluntary or legislative action ¹² .	
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GOAL 3. Improve waste management and interception of litter on land before it enters the ocean.

Objective 3.1. Support the State Water Resources Control Board’s Trash Amendments.	
Action Items	Lead & Partner Organizations
3.1.1. Create a mechanism for local governments to fund stormwater trash programs through public or private sources.	American Chemistry Council (ACC), Clean Water Action/Clean Water Fund, Ocean Protection Council (OPC), Plastic Recycling Corporation of California (PRCC), Save Our Shores, UPSTREAM
3.1.2. Implement a statewide Adopt-A-Storm Drain program.	Plastic Recycling Corporation of California (PRCC), Save Our Shores
3.1.3. Educate the public about the Trash Amendments.	
Objective 3.2. Improve waste management in public places.	
Action Items	Lead & Partner Organizations
3.2.1. Establish and improve management of trash, recycling, and compost receptacles in high use areas.	Amcors Limited, American Chemistry Council (ACC), California Coastal Commission, Ocean Protection Council (OPC), Plastic Recycling Corporation of California (PRCC), Save Our Shores
3.2.2. Increase industry investment in infrastructure improvements to address waste management at schools and other public areas.	American Chemistry Council (ACC)
3.2.3. Support packaging policies that develop and expand infrastructure for recycling in California.	
3.2.4. Engage with municipalities and social programs to assess how to reduce ocean litter from	

¹² In July 2017, China informed the World Trade Organization (WTO) that by the end of 2017, it would ban the import of 24 types of waste, including “plastics waste from living sources” (Reuters 2017). China’s new policy has put pressure on California’s recycling infrastructure (which currently relies on the export of about one-third of the recyclable materials generated in the state to other countries), as in 2016, 62% of the 15 million tons of recyclable materials exported by California went to China (CalRecycle 2018). China’s policy change has emphasized the need to promote waste prevention in California, as well as expand California’s own recycling infrastructure, to reduce the amount of recyclable waste that is exported each year (CalRecycle 2018).

encampments, as one strategy to improve the health, wellbeing, and safety of homeless communities.	
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GOAL 4. Conduct and communicate research on existing and emerging issues related to land-based ocean litter.

Objective 4.1. Conduct a comprehensive characterization of microplastics and macro-debris.	
Action Items	Lead & Partner Organizations
4.1.1. Convene an expert workgroup to develop a matrix of standard sample collection, processing, and characterization methods for measuring temporal changes in microplastics and macro-debris in different environments.	San Francisco Estuary Institute (SFEI), Southern California Coastal Water Research Project (SCCWRP), 5 Gyres Institute, American Chemistry Council (ACC), California Association of Sanitation Agencies (CASA), Clean Water Action/Clean Water Fund, Dr. Andrew Gray at UC Riverside, Dr. Erika Holland at CSULB, Environmental Science and Resource Management (ESRM) Program at CSUCI (including Dr. Clare Steele), NOAA Marine Debris Program (NOAA MDP), Plastic Recycling Corporation of California (PRCC), Surfrider Foundation
4.1.2. Develop and test laboratory methods to identify the most common macro- and micro-plastic debris polymer types through molecular techniques (e.g., FTIR, Raman, forensics).	Environmental Science and Resource Management (ESRM) Program at CSUCI (including Dr. Clare Steele), American Chemistry Council (ACC), Bay Area Clean Water Agencies (BACWA), Dr. Andrew Gray at UC Riverside, Dr. Erika Holland at CSULB, Southern California Alliance of Publicly Owned Treatment Works (SCAP)
4.1.3. Develop a watershed-scale program to model and monitor microplastics and macro-debris flux, transport, degradation, and fate according to a variety of endpoints (e.g., street litter, stormwater, wastewater, and direct discharges).	San Francisco Estuary Institute (SFEI), 5 Gyres Institute, American Chemistry Council (ACC), California Association of Sanitation Agencies (CASA), California Coastkeeper Alliance, Dr. Andrew Gray at UC Riverside, Dr. Natalie Mladenov at SDSU
4.1.4. Create a comprehensive litter dataset to identify the most common item types according to material, product, brand, and source.	Dr. Andrew Gray at UC Riverside, Surfrider Foundation
Objective 4.2. Quantify microplastics pathways within watersheds and develop technological solutions.	
Action Items	Lead & Partner Organizations

4.2.1. Identify and quantify microfibers and microplastics from wastewater, stormwater, airborne, and agricultural sources.	San Francisco Estuary Institute (SFEI), Southern California Coastal Water Research Project (SCCWRP), 5 Gyres Institute, Bay Area Clean Water Agencies (BACWA), Dr. Andrew Gray at UC Riverside, Dr. Natalie Mladenov at SDSU, Environmental Science and Resource Management (ESRM) Program at CSUCI, Southern California Alliance of Publicly Owned Treatment Works (SCAP)
4.2.2. Research innovative solutions to address microfibers in textiles and apparel.	Dr. Andrew Gray at UC Riverside, Southern California Alliance of Publicly Owned Treatment Works (SCAP)
4.2.3. Research technological solutions to address microfibers at wastewater treatment plants or in washing machines.	Dr. Andrew Gray at UC Riverside, Southern California Alliance of Publicly Owned Treatment Works (SCAP)
Objective 4.3. Research ecological and toxicological impacts of commonly found ocean litter on marine resources and human health.	
Action Items	Lead & Partner Organizations
4.3.1. Advance research on the chemical components of common ocean litter items (by resin type) and the potential for pollutants to migrate into the environment and aquatic organisms via ocean litter.	Ocean Protection Council (OPC), American Chemistry Council (ACC), California Department of Toxic Substances Control (DTSC), California Lost Fishing Gear Recovery Project at UC Davis, Dr. Erika Holland at CSULB, Environmental Science and Resource Management (ESRM) Program at CSUCI (including Dr. Clare Steele), Graduate School of Public Health at SDSU, UPSTREAM
4.3.2. Assess population and community-level impacts to economically important and/or especially vulnerable species from exposure to plastics and adsorbed pollutants.	
4.3.3. Research impacts to human health via direct consumption of microplastics and seafood exposed to plastic debris.	American Chemistry Council (ACC), California Lost Fishing Gear Recovery Project at UC Davis, UPSTREAM
Objective 4.4. Assess the effectiveness of existing bans, policies, and programs.	
Action Items	Lead & Partner Organizations
4.4.1. Conduct cost-benefit analyses for implementation of different common ocean litter item reduction policies/strategies and provide them to cities and businesses (i.e., local ordinances to ban expanded polystyrene, deposit schemes, packaging redesign).	Dr. Andrew Gray at UC Riverside

4.4.2. Analyze the impact of the statewide plastic bag ban on reducing disposable bag use, preventing ocean litter, and reducing government costs.	American Chemistry Council (ACC), California Coastal Commission, Dr. Andrew Gray at UC Riverside
4.4.3. Conduct research into consumer behavior to assess attitudes toward reusable and disposable items, convenience, willingness to pay, and incentives to avoid commonly littered items (e.g., cigarette filters).	Clean Water Action/Clean Water Fund, Dr. Sean Anderson at CSUCI, Plastic Recycling Corporation of California (PRCC), Save Our Shores
Objective 4.5. Improve coordination among California organizations conducting ocean litter research.	
Action Items	Lead & Partner Organizations
4.5.1. Improve communication among ocean litter research entities in California through participation in the Ocean Litter Strategy implementation process.	NOAA Marine Debris Program (NOAA MDP), Ocean Protection Council (OPC)
4.5.2. Increase dissemination of research results to the public and management agencies (e.g., California Department of Fish and Wildlife).	Ocean Protection Council (OPC)

GOAL 5. Generate behavior change by educating and engaging communities and individuals to reduce ocean litter.

Objective 5.1. Increase formal and informal science-based education to raise awareness of ocean litter.	
Action Items	Lead & Partner Organizations
5.1.1. Compile and share a database of existing resources and curriculum for formal education on ocean litter.	NOAA Marine Debris Program (NOAA MDP)
5.1.2. Integrate standards-based ocean litter curriculum into school programs.	5 Gyres Institute, California Coastal Commission, Institute for Geographic Information Science (IGISc) at SFSU, Monterey Bay Aquarium, NOAA Marine Debris Program (NOAA MDP), Plastic Recycling Corporation of California (PRCC), Save Our Shores
5.1.3. Develop and distribute toolkits to empower high school and college students to educate people on their campuses and in their communities.	Monterey Bay Aquarium, NOAA Marine Debris Program, Plastic Recycling Corporation of California (PRCC)
Objective 5.2. Educate consumers about the sources of ocean litter, to drive behavior change in purchasing.	

Action Items	Lead & Partner Organizations
5.2.1. Implement coastal and inland public education campaigns about common ocean litter items, to drive changes in purchasing.	California Coastal Commission, Californians Against Waste, Environmental Science and Resource Management (ESRM) Program at CSUCI, Plastic Recycling Corporation of California (PRCC), Save Our Shores, Surfrider Foundation
5.2.2. Develop messaging for consumers and producers on microfibers given our current state of knowledge on this emerging issue.	Bay Area Clean Water Agencies (BACWA), California Association of Sanitation Agencies (CASA), Californians Against Waste, Environmental Science and Resource Management (ESRM) Program at CSUCI
5.2.3. Implement a public education campaign about cigarette filters.	California Coastal Commission, Californians Against Waste, Save Our Shores, UPSTREAM

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GOAL 6. Reduce ocean-based debris at its source, and maximize the efficiency of control and cleanup of ocean-based debris.

Objective 6.1. Leverage industry knowledge to prevent lost fishing gear.	
Action Items	Lead & Partner Organizations
6.1.1. Leverage veteran fishermen’s knowledge about gear loss prevention and share strategies with the commercial and recreational fishing industries.	California Lost Fishing Gear Recovery Project at UC Davis, Channel Islands National Marine Sanctuary, NOAA Marine Debris Program (NOAA MDP)
6.1.2. Share lessons learned from the fishing industry with management agencies and other stakeholders to focus policy and funding on prevention and recovery of lost gear.	California Lost Fishing Gear Recovery Project at UC Davis, Channel Islands National Marine Sanctuary
6.1.3. Work with the fishing community to design gear to be more durable, less likely to be lost, and less harmful to the environment once lost.	
Objective 6.2. Implement Best Management Practice (BMP) Plans for reducing lost gear within the aquaculture industry.	
Action Items	Lead & Partner Organizations

6.2.1. Compile key outcomes desired for effective BMP Plans for the aquaculture industry through a collaborative process with, and between, growers.	California Department of Fish and Wildlife (CDFW)
6.2.2. Update Fish and Game Commission policies to include BMPs in permitting considerations such as the issuance of aquaculture leases, and educate growers and stakeholders about BMPs to help in the implementation process.	California Department of Fish and Wildlife (CDFW), Channel Islands National Marine Sanctuary
6.2.3. Include aquaculture BMP Plan implementation requirements in coastal development permits, where appropriate.	
Objective 6.3. Improve tracking of lost fishing and aquaculture gear in order to better understand lost gear patterns and impacts, and to facilitate removal.	
Action Items	Lead & Partner Organizations
6.3.1. Improve the reporting system for lost fishing gear by developing and identifying manager(s) of a centralized database for reporting GPS locations of lost commercial and recreational gear without penalty to fishermen.	California Lost Fishing Gear Recovery Project at UC Davis, Channel Islands National Marine Sanctuary, Dr. Andrew Gray at UC Riverside
6.3.2. Implement a pilot project to assess the effectiveness of different tagging and marking methods for aquaculture gear.	NOAA Marine Debris Program (NOAA MDP)
6.3.3. Include aquaculture gear marking and debris collection reporting requirements in coastal development permits, where appropriate.	
Objective 6.4. Increase the removal of ocean-based debris.	
Action Items	Lead & Partner Organizations
6.4.1. Research and provide recommendations to overcome policy barriers to lost gear removal and ocean-based marine debris cleanup.	California Lost Fishing Gear Recovery Project at UC Davis, Channel Islands National Marine Sanctuary
6.4.2. Support and expand existing programs for the prevention and removal of abandoned or derelict vessels (e.g., funding for removal of commercial vessels).	
6.4.3. Implement a buyback, return, and/or recycling program for old and/or unused fishing gear.	California Lost Fishing Gear Recovery Project at UC Davis

<p>6.4.4. Identify and remove, when deemed appropriate based on potential impacts of removal, legacy aquaculture debris from historic aquaculture lease operations (e.g., Tomales Bay).</p>	<p>California Lost Fishing Gear Recovery Project at UC Davis</p>
<p>6.4.5. Engage and partner with boaters, fishermen, divers, growers, local communities, and other ocean stakeholders to implement regional cleanup programs (e.g., in bays, ports, or harbors).</p>	<p>Channel Islands National Marine Sanctuary (Coastal Cleanup Day and Get Into Your Sanctuary Day), California State Parks Division of Boating & Waterways and California Coastal Commission, Environmental Science and Resource Management (ESRM) Program at CSUCI</p>
<p>6.4.6. Place large receptacles at ports and harbors for fishermen to dispose of trash that has been collected while fishing.</p>	

DRAFT

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Memorandum

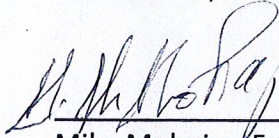
To: California SWANA Legislative Task Force Members
From: Financial Audit Committee
Date: February 22, 2018
Re: Financial Audit Committee Report -2017 Findings

The SWANA California Legislative Task Force (LTF) Audit Committee reviewed the Legislative Task Force accounts, records and statements and found the financial statements to [e.g. reflect the revenues and expenditures properly. Committee members reviewed the checkbook, statement of expenses and corresponding bills and the revenues and deposit records. The balance sheet and checkbook were in balance with no material discrepancies].

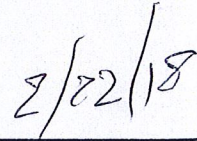
[other statement or concern]

The LTF may consider a certified audit at some future period to ensure that a complete and certified audit is accomplished if activities of the LTF are expanded beyond the current scope.

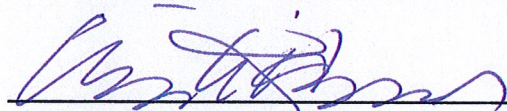
Members of the Audit Committee met on Feb. 22, 2018 at the LTF meeting held in Sacramento, California.



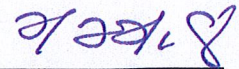
Mike Mohajer, Founding Chapter



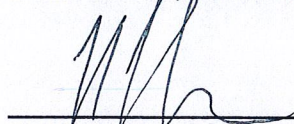
Date



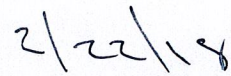
Chris Hansen, Gold Rush Chapter



Date



Curtis Lakin, Sierra Chapter



Date