Bill	Author	Status	Summary	Task Force Position
AB 6	Houston	Dead	Existing Law: California's Global Warming Solutions Act (AB 32, 2006 Statutes) requires the State Air Resources Board (SARB) to develop regulations to achieve the Act's greenhouse gas emission reduction targets. SARB has the discretion to incorporate market-based options.	
			Proposed Law: This bill would allow a taxpayer to take a deduction for depreciation for qualified capital expenditures such as an existing engine, boiler, generator, or other tangible personal property, that measurably reduces greenhouse gas emissions for the production, generation, or the storing of renewable energy from biomass, solar, wind, and hydrogen sources over a 3-year period.	
AB 35	Ruskin	Vetoed 10-14-07	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	
			Proposed Law: This bill would require a state agency that constructs or renovates a state building on or after July 1, 2010, to meet a minimum gold standard for the U.S. Green Building Council's Leadership in Energy and Environmental Design.	
AB 48	Saldana	Vetoed 10-13-07	Existing Law: The Department of Toxic Substances Control (DTSC) regulates the sale of Covered Electronic Devices (e.g., TVs, computer monitors, laptop computers, and LCD/plasma TVs). State law requires DTSC to adopt regulations by January 1, 2007 prohibiting the sale of CEDs if they are banned in the European Union.	
		Reintroduced from 2006 Legislative Session (AB 2202)	Proposed Law: This bill prohibits electronics producers from manufacturing electronic devices for sale in California that are prohibited from sale in the European Union by the reduction of hazardous substances directive, effective January 1, 2010.	
AB 118	Nunez	Chaptered 10-14-07	Existing Law: Existing law imposes various limitations on emissions of air contaminants for the control of air pollution from vehicular and nonvehicular sources.	
			Proposed Law: This bill enacts the California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007, funded through fees on vehicle owners and electric utility ratepayers, which would pay for various programs intended to improve air quality and to increase the use of alternative fuels and advanced vehicle technology.	

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Bill	Author	Status	Summary	Task Force Position
AB 218	Saldana	In Senate	Existing Law: Existing law requires the Department of Toxic Substances Control to adopt regulations to prohibit an electronic device from being sold or offered for sale in this state if the electronic device is prohibited from being sold or offered for sale in the European Union on and after its date of manufacture.	
		Committee	Proposed Law: This bill would phase out the use of specified hazardous materials consistent with the European Union's RoHS Directive, in the production of consumer electronics within the state by January 1, 2010, unless an exemption is made.	
AB 258	Krekorian	Chaptered 10-14-07	Existing Law: The California Coastal Commission, in partnership with local governments, plans and regulates development and natural resource use along the coast.	
			Proposed Law: This bill would require the State Water Board and other regional boards to implement a program by January 1, 2009 for the control of discharges of preproduction plastics from point and nonpoint sources.	
AB 484	Nava	Vetoed 10-11-07	Existing Law: Existing law requires the Department of Transportation, and any other state agency that provides construction and repair services, to contract for construction items that utilize recycled materials used in paving or paving subbase.	Letter of Support sent 6-21-07 for
			Proposed Law: This bill would prohibit CalTrans, or any contractee with the department, from disposing of asphalt concrete or Portland cement concrete in a solid waste landfill, unless the department makes a specified determination that no other means of using or disposing the material is feasible or that it will be used for beneficial reuse in the construction or operation of a solid waste landfill.	2-20-07 version
			<i>Previously</i> , this bill would have required CalTrans to increase the use of recycled aggregate base to at least 50 percent by January 1, 2008, and at least 75 percent by January 1, 2009, unless it determines that the use of the materials is not cost effective.	

Bill	Author	Status	Summary	Task Force Position
AB 501	Swanson and Hancock	Amended 6-11-08	Existing Law: It is prohibited for a person to dispose of home-generated sharps waste after September 1, 2008.	Letter of Support sent
		In Senate Health Committee 2 year bill	Proposed Law: This bill would require pharmaceutical manufacturers, at the request of a consumer of specified injection devices, to provide either a prepaid mail-back sharps container, or a sharps container for safe storage and transport to a sharps' consolidation location or other specified locations. As an alternative, the bill would allow for manufacturers to 1) Supply a coupon for a mail-back sharps container or container for safe storage, or 2) provide a toll-free telephone number or website to be displayed on the package that directs the patient to a supplier of sharps containers or mail-back containers.	for 4-30-07 and 1-07-08 versions, and Support and Amend for 3-13-08 version
AB 546	Brownley	Vetoed 10-14-07	Existing Law: The Department of Toxic Substances Control regulates the sale of Covered Electronic Devices (e.g., TVs, computer monitors, laptop computers, and LCD/plasma TVs). A \$6 - \$10 recovery fee (depending on the screen size) is imposed on these CEDs to fund the collection and recycling of these CEDs. Proposed Law: Beginning July 1, 2008, this bill would require a retailer that sells a covered electronic device to provide a customer through either a sign, written material, or on the sales receipt with the Waste Board's Internet website, which describes where and how to return, recycle, and dispose of a covered electronic device, as well as the locations for its collection or return.	Watch
AB 548	Levine	Vetoed 10-14-07	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. Proposed Law: This bill would require on or after July 1, 2008, that an owner of a multifamily dwelling consisting of five or more units, provide recycling services that are consistent with any other state or local law or requirement governing the collection, handling, or recycling of solid waste.	Watch
AB 656	Plescia	Dead	Existing Law: Effective February 8, 2006, households can no longer dispose universal waste into the trash. Universal waste includes electronic waste, household batteries, fluorescent tubes, mercury waste, and aerosol cans. Proposed Law: This bill would require the Waste Board and Water Resources Control Board to prepare and forward a report to the Legislature by July 1, 2008 on whether the incidental disposal of alkaline batteries at landfills cause any environmental impacts.	Watch

Bill	Author	Status	Summary	Task Force Position
AB 679	Benoit	Chaptered 10-10-07	 Existing Law: Current law carries various penalties, including fines and/or imprisonment for littering or illegal dumping. Proposed Law: This bill would require the court to impose an assessment in addition to any other penalty or fine, in the amount of \$100 for an infraction or \$200 for a misdemeanor, for use by the City or County for illegal dumping enforcement. 	Letter of Support for 5-03-07 version sent 6-11-07
			Previously, this bill would have required the court system to impose a civil assessment on violators that is equal to the actual cost of cleanup incurred by the city or county that results from littering or illegal dumping offenses.	
AB 712	De Leon	Amended 7-12-07	Existing Law: Existing law requires each operator of a solid waste disposal facility to pay a quarterly fee to the State Board of Equalization.	Letter of Opposition
		Held under Submission in Senate Appropriations Committee 2 year bill	Proposed Law: This bill would impose a new tipping fee of \$0.50/ton of waste disposed in California beginning April 1, 2008, in order to fund air quality compliance for off-road diesel vehicles that dispose, transfer, or process solid waste or recyclable materials. This bill would also provide up to four million dollars in grants for projects that reduce greenhouse gas emissions from landfills through organic material diversion (excluding "thermal technologies").	sent 6-12-07 for 5-02-07 version
AB 722	Levine	Dead	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	Watch
			Proposed Law: Starting July 1, 2010, this bill would phase in minimum energy efficiency requirements for general purpose light bulbs over a six-year period. It would require that after the phase-in, most general purpose lights achieve 50 lumens per watt standard.	
AB 729	Mullin	Dead	Existing Law: The Department of Toxic Substances Control regulates the sale of Covered Electronic Devices (e.g., TVs, computer monitors, laptop computers, and LCD/plasma TVs). A \$6 - \$10 recovery fee (depending on the screen size) is imposed on these CEDs to fund the collection and recycling of these CEDs.	
			Proposed Law: This bill would require the Waste Board to develop regulations for authorized CED collectors to legally donate CEDs to non-profit organizations for reuse.	
AB 769	Aghazarian	Dead	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	
			Proposed Law: This bill would exempt all fuel used to transport biomass, including the organic fraction of municipal solid waste, from the State's Sales and Use Tax.	

Bill	Author	Status	Summary	Task Force Position
AB 800	Lieu, Brownley and Krekorian	Chaptered 10-10-07	Existing Law: State law requires the State Office of Emergency Services to be immediately notified when hazardous substances or sewage is discharged into the waters of the State.	Watch
		Related bill AB 1391	Proposed Law: This bill would expand the notification requirements and associated penalties for discharging hazardous substances, sewage, or other wastes into the waters of the State.	
AB 820	Karnette	Dead	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	Letter of Support sent
			Proposed Law: This bill would prohibit the selling, use, or distribution of polystyrene food containers at University of California campuses, State Mental Hospitals, and California prisons on condition it is approved by the Board of Regents or the Department of Corrections.	5-17-07
AB 822	Levine	Amended 1-07-08	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	
		In Senate Environmental Quality Committee	Proposed Law: This bill would require on or after July 1, 2009, that an owner of a multifamily dwelling consisting of five or more units, provide recycling services that are consistent with any other state or local law or requirement governing the collection, handling, or recycling of solid waste.	t
		Reintroduction related bill AB 548	conection, nanding, or recycling of solid waste.	
AB 904	Feuer	Amended 1-29-08	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	Letter of Support for
		In Senate Environmental Quality Committee	Proposed Law: This bill enacts the Plastic and Marine Debris Reduction, Recycling, and Composting Act, and prohibits a take-out food provider, on and after July 1, 2012, from distributing single use single-use food service packaging to a consumer, unless the single-use food service packaging is either compostable or recyclable.	4-11-07 version sent 6-11-07
AB 1018	Emerson	Dead	Existing Law: Any unauthorized discharge of waste into the waters of the State must be abated in compliance with the local Regional Water Quality Control Board or the State Water Resources Control Board requirements.	
			Proposed Law: This spot bill would make technical non-substantive changes relating to the above issue.	

Bill	Author	Status	Summary	Task Force Position
AB 1023	Desaulnier	Chaptered 7-27-07	Existing Law: Manufacturers of specified plastic trash bags (excluding grocery bags) must incorporate post consumer plastic material in their bags (10% of the bag weight) or in all its plastic products (30% of the total weight).	
			Proposed Law: Exempts manufacturers of compostable and biodegradable trash bags from California's recycled-content requirements for plastic trash bags.	
AB 1058	Laird	Vetoed 10-14-07	Existing Law: Existing law sets forth various requirements for energy and design efficiency in the construction and renovation of state buildings.	
			Proposed Law: This bill requires the Department of Housing and Community Development to develop and promote green building standards for residential occupancies and submit them to the Building Standards Commission for review, adoption, approval and publication by July 1, 2009.	
AB 1075	Cook	Amended 5-14-08 In Senate Appropriations	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. Up to 10% of the 50% diversion requirement can be met through biomass conversion provided certain conditions are met, including sending hazardous waste ash to a Class I Hazardous Waste Disposal Facility.	Letter of Support sent 1-08-08
		Committee	Proposed Law: This bill would revise the definition of "transformation" to exclude anaerobic digestion. It would define composting operation, composting facility, and anaerobic digestion.	
		2 year bill	Previously, this bill would have also defined the term gasification as "solid waste conversion".	
AB 1109	Huffman and Feuer	Chaptered 10-12-07	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills.	Watch
			Proposed Law: This bill would create the California Lighting Efficiency and Toxics Reduction Act which would prohibit, on or after January 1, 2010, a person from manufacturing or selling specified general purpose and incandescent lights that contain levels of hazardous substances prohibited by the European Union.	
AB 1183	Hancock	Dead	Existing Law: DTSC regulates hazardous waste in California.	
			Proposed Law: This bill updates the means by which information maintained by the Department of Toxic Substances Control and the State Water Resources Control Board on contaminated sites throughout the state is made available to the public.	

Bill	Author	Status	Summary	Task Force Position
AB 1193	Ruskin	Dead	Existing Law: Existing law prohibits a person from selling, offering to sell, or distributing for promotional purpose a mercury-added thermostat.	
			Proposed Law: This bill would require manufacturers to create a collection and recycling program for mercury added thermostats.	
AB 1195	Torrico	Amended 4-15-08 In Senate Appropriations	Existing Law: The Waste Board administers used oil recycling incentive program which provides used oil collection centers/programs \$0.16/gallon for recycling used oil, and electric utilities \$0.16/gallon for generating electricity from used oil.	
		Committee 2 year bill	Proposed Law: This bill would require a used oil generator, transporter, or transfer facility to analyze the oil by an accredited laboratory prior to shipment or recycling, and ship the oil only to a recycling facility certified by the Waste Board. It would require the Waste Board to pay a recycling incentive for any oil burned or used for energy recovery that meets recycled oil purity standards.	
AB 1207	Smyth	Dead	Existing Law: The State Water Resources Control Board and the Regional Water Quality Control Board regulates the land application of biosolids. Proposed Law: This bill would require the Waste Board, in consultation with the	Letter of Opposition sent 6-4-07
			State Water Resources Control Board, to adopt regulations for the land application of biosolids by July 1, 2010.	
AB 1237	Hancock	Dead	Existing Law: The Local Enforcement Agency and the Waste Board are required to conduct regular inspections of solid waste facilities. In addition, the Waste Board has 60 days to determine whether to concur or object to the issuance of a Solid Waste Facilities Permit.	Letter to Oppose unless Amended sent
			Proposed Law: This bill would require the LEA and Waste Board inspections to be unannounced. In addition, the Waste Board's 60-day review period would be extended to 90-days. No action taken would be considered tacit objection.	5-17-07
AB 1391	Brownley	Amended 6-05-08 In Senate	Existing Law: The Electronic Waste Recycling Act of 2003 requires a retailer selling a covered electronic device in this state to collect a covered electronic waste recycling fee from the consumer.	Letter of Support sent 05-14-08
		Appropriations Committee	Proposed Law: Beginning July 1, 2009, this bill would require a retailer that sells a covered electronic device (CED) to provide a customer information on the Waste Board's Internet website which shall describe the means of returning, recycling, or	
		Related Bill: AB 546 2 year bill	disposing of the device.	

Bill	Author	Status	Summary	Task Force Position
AB 1428	Galgiani	Amended 6-26-07 In Senate Environmental Quality Committee 2 year bill	Existing Law: Under existing law, electrical corporations are required to provide eligible biogas digester customer-generators with net energy metering under a pilot program. Proposed Law: This bill would replace the existing pilot program for eligible biogas digester customer-generators with a net energy metering program for eligible customer-generators, which use agricultural residues, animal wastes, or animal renderings (excluding municipal waste) to generate electricity.	
AB 1447	Calderon	Chaptered 10-14-07	Existing Law: No person, other than a certified appliance recycler, can remove materials that require special handling from major appliances, or transport/sell discarded major appliances to a scrap recycling facility, unless specific conditions are met. Proposed Law: This bill makes several changes to provisions governing the	
			handling of hazardous waste and other materials removed from a major appliance before recycling or disposal of the appliance. It would allow appliance service technicians to remove refrigerants from major appliances, and expand the requirements for a certified appliance recycler.	
AB 1473	Feuer	Chaptered 10-12-07	Existing Law: A solid waste facility cannot operate without a Solid Waste Facilities Permit. If the LEA determines that a facility is in violation of this requirement, the LEA must issue a cease and desist order.	Letter of Support for 4-11-07
			Proposed Law: This bill requires the CIWMB to adopt emergency regulations to authorize an enforcement agency, upon CIWMB's concurrence, to issue a temporary solid waste facilities permit to an operating solid waste transfer or processing station or a composting facility, which, as of January 1, 2008, is required under the act to have a solid waste facilities permit but for which a permit has not been obtained. The bill sunsets July 1, 2010.	version sent 5-17-07
AB 1535	Huffman	Dead	Existing Law: The Department of Toxic Substances Control regulates the sale of Covered Electronic Devices (e.g., TVs, computer monitors, laptop computers, and LCD/plasma TVs). A \$6 - \$10 recovery fee (depending on the screen size) is imposed on these CEDs to fund the collection and recycling of these CEDs.	Letter of Support sent 6-21-07
			Proposed Law: This bill would change the point of collection for the Electronic Waste Recycling Fee (fee) from the consumer to the manufacturer on every new or refurbished covered electronic device sold or offered for sale in this state. It would also require the Waste Board to review and make adjustments to the fee, as applicable.	

Bill	Author	Status	Summary	Task Force Position
AB 1610	Nunez	Dead	Existing Law: The Waste Board currently imposes a \$1.40 per ton fee (maximum rate authorized by law) on each solid waste disposed to fund most of their activities. Proposed Law: This bill would require an owner or operator of an oil refinery facility	Opposition for 2-23-07
			in the state to submit information to the Energy Commission relating to the capacity and operational status of the facility.	version sent 4-19-07
AB 1778	Ма	Amended 5-08-08	Existing Law: Existing law requires junk dealers and recyclers, as defined, to keep written records of all sales and purchases made in the course of their business.	
		In Senate Environmental Quality Committee	Proposed Law: The bill would prohibit specified junk dealer or recyclers from paying for redemption values totaling \$50 or more.	
AB 1860	Huffman	Amended 5-23-08	Existing Law: Existing state law provides for the establishment and enforcement of various product safety standards for certain consumer products.	Letter of Support sent
		In Senate Judiciary Committee	Proposed Law: This bill would enact the Product Recall Safety and Protection Act, which requires immediate removal from the market, disposal, and notice to consumers for products subject to recall or warnings, as specified. It would require manufacturers to ensure that their recalled products are properly disposed. Violation of this act will be subjected to a civil penalty of up to \$1,000 for each occurrence, not to exceed \$20,000.	
AB 1972	DeSaulnier	Amended 6-17-08 In Senate Environmental	Existing Law: Existing law prohibits a person from selling a plastic bag that is labeled as "compostable," "biodegradable," or "degradable," unless the bag meets the current American Society for Testing and Materials (ASTM) standard specification for the term used on the label.	
		Quality Committee	Proposed Law: This bill would prohibit the sale of a plastic bag, food or beverage containers that are labeled as "compostable" or "marine degradable," unless that bag meets the ASTM Standard Specification for Compostable Plastics. It will also prohibit the sale of plastic bags, food or beverage containers in this state that are labeled with the term "biodegradable," "degradable," or "decomposable," or any form of those terms, or in any way imply that these materials will break down, fragment, biodegrade, or decompose in a landfill or other environment.	

Bill	Author	Status	Summary	Task Force Position
AB 2058	In Senate		Existing Law: Existing law requires an operator of a store, as defined, to establish an at-store recycling program that provides customers the opportunity to return clean plastic carryout bags to that store.	
		Environmental Quality Committee	Proposed Law: This bill would require supermarkets and retail stores over 10,000ft to demonstrate 70% diversion of plastic bags by December 31, 2010. If this goal is not met, retailers must charge a \$0.25 fee for each plastic bag distributed. Funds collected would be used for plastic bag litter reduction and recycling activities. On or after July 1, 2011, a store must also charge \$0.25 for each paper bag distributed, with funds collected used for paper bag litter reduction and recycling activities.	
AB 2071	Karnette	Amended 6-12-08 In Senate Judiciary	Existing Law: Existing law prohibits a person selling a plastic bag, food or beverage containers labeled with "compostable", "biodegradable" or "degradable" unless those items meet specified standards.	
		Committee	Proposed Law: This bill would authorize local and state government to impose a civil liability (\$500 first infraction, \$1000 second infraction) should a plastic bag be sold in violation of existing law.	
AB 2347	Ruskin	Amended 6-10-08 In Senate	Existing Law: Existing law prohibits, on and after January 1, 2006, a person from selling, offering to sell, or distributing for promotional purposes a mercury-added thermostat unless it meets specified criteria.	
		Environmental Quality Committee	Proposed Law: This bill would require certain manufacturers to establish and maintain a collection and recycling program for out-of-service mercury-added thermostats by April 1, 2010. It would require that programs achieve a 50% recycling rate by December 31, 2012 and a 75% recycling rate by 2015.	
AB 2415	Fuentes	Dead	Existing Law: The California Integrated Waste Management Act of 1989 requires a person who proposes to operate a solid waste facility to file with the enforcement agency having jurisdiction over the facility.	Letter of Support sent 3-17-08
			Proposed Law: This bill would require the Waste Board, in the case where a proposed or existing solid waste facility is located in multiple jurisdictions to obtain the approval of the local enforcement agency of each jurisdiction in which the facility is located before the issuance or revision of the permit, and would take effect immediately.	

Bill	Author	Status	Summary	Task Force Position
AB 2505	Brownley	Amended 5-23-08 In Senate	Existing Law: The Toxics in Packaging Prevention Act, prohibits a manufacturer or supplier from offering for sale or for promotional purposes in this state a package or packaging component that includes specified regulated metals.	
			Proposed Law: This bill would prohibit, on and after January 1, 2010, the manufacture, importation, sale, or distribution of polyvinyl chloride (PVC) packaging containers, with certain exceptions. It would also establish a compliance certification program beginning January 1, 2010. A person violating the prohibition would be subject to a fine not to exceed \$2,500 daily.	
AB 2610	Davis	Amended 5-06-08 In Senate Local	Existing Law: Existing law makes it unlawful for any association of persons to engage, directly or indirectly, in the soliciting of donations or in selling salvageable personal property obtained by soliciting, except qualified charitable organizations.	
		Government Committee	Proposed Law: This bill would authorize a county to prohibit by ordinance, a person or entity from placing, using, or employing a collection box for solicitation purposes without a permit and would limit the issuance of permits under these provisions to qualified charitable organizations. It would exempt a jurisdiction that has enacted a permit process for collection boxes prior to January 1, 2009.	
AB 2625	Strickland	Dead	Existing Law: Existing law exempts developmental engine fuels authorized by the Department of Food and Agriculture from various restrictions.	Support in concept letter
			Proposed Law: This bill would define "renewable diesel" to include that which is derived from non-petroleum renewable resources, including municipal solid waste and other sources.	sent 3-17-08
AB 2640	Huffman	Amended 6-17-08 In Senate	Existing Law: AB 939 requires each city, county, and regional agency to develop a source reduction and recycling program and to divert 50% of all solid waste destined to landfills.	Letter of Opposition sent 3-27-08
		Related Bill: AB 2866	Proposed Law: This bill would, beginning January 1, 2010, make greenwaste used as ADC subject to the State's solid waste fee, with revenue used to provide grants for new or existing composting facilities. It would allow the Board to evaluate the feasibility of allowing the use of new nongreen material alternative daily covers.	for 2-22-08 version and 6- 18-08 for 5-23- 08 revision

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Bill	Author	Status	Summary	Task Force Position
AB 2679	Ruskin Amended 6-05-08 In Senate		source reduction and recycling program and to divert 50% of all solid waste destined	
		Environmental Quality Committee	Proposed Law: This bill would authorize a local enforcement agency (LEA) to fund illegal dumping abatement, prevention, and public awareness activities. The bill would also grant the Waste Board the ability to take enforcement action available to an LEA, and would make other technical and clarifying changes.	
AB 2695	Nielo	Amended 6-12-08	Existing Law: Current law prohibits any person from unauthorized dumping or littering materials upon public or private property.	Letter of Support sent
		In Senate Environmental Quality Committee	Proposed Law: This bill would provide solid waste local enforcement agencies (LEAs) with the authority to inspect illegal dumping activities, and establishes an illegal dumping grant and loan program by the Waste Board.	05-14-08
AB 2730	AB 2730 Leno Amended 6-10-08 In Senate Environmental Quality Committee		Amended 6-10-08 Existing Law: Existing Law requires that every beverage container sold in the state is required to have a minimum refund value.	
			Proposed Law: This bill would require a nonprofit convenience zone recycler to be located within one mile of a supermarket that is in a convenience zone unserved by a recycling center, as well as being in operation for not less than five years in the same location, and for that to be the basis for an exemption from the current requirements that require a certified recycling center or location within every convenience zone.	
AB 2829	Davis	Dead	Existing Law: Existing law requires an operator of a store to establish an at-store recycling program.	Letter of Support sent
			Proposed Law: This bill would require each plastic carryout bag provided by the store to have printed or displayed on the bag an environmental awareness statement describing the negative environmental and wildlife impacts caused by littered plastic carryout bags and encouraging the use of reusable bags. It requires, on and after July 1, 2009, a person to pay specified stores a plastic carryout bag impact fee of \$0.25 per bag. Fees collected would be deposited in the California Plastic Carryout Bag Impact Fund, to be available to local governments on a per-capita basis for various plastic bag cleanup and reduction activities.	3-17-08

Bill	Author	Status	Summary	Task Force Position
AB 2866	De Leon	Amended 6-17-08 Existing Law: The California Integrated Waste Management Act of 1989, require operator of a solid waste disposal facility to pay a fee of \$1.40 for each ton of waste disposed to the State Board of Equalization.		Oppose Unless Amended
		Environmental Quality Committee Related Bill: AB 2640	Proposed Law: This Bill would increases the state's solid waste tipping fee from \$1.40 per ton to \$2 per ton beginning July 1, 2009 and directs the additional funding toward specified "clean fuel demonstration projects"; programs for compostable organics diversion; and to establish and maintain \$50 million in a trust fund for postclosure landfill liability, which the owner of the landfill will be required to pay back funds expended. The bill also allows solid waste enterprises, as defined, to pass along the cost of any fees pursuant to the provisions of a local permit, statute, or ordinance. The bill also specifies that not less than 40% of the funds and loans available for projects which divert "compostable organics" and for clean fuel demonstration projects would be available for Southern California. After July 1, 2020, all funds generated from the increased disposal fee would be directed into the Integrated Waste Management Account.	Letter sent 3-17-08 and Oppose letter sent 5-27-08
AB 2939	3 2939 Hancock Amended 5-19-08 In Senate Environmental Quality Committee		Existing Law: Existing law authorizes a city or county to make changes or modifications in the building standards proposed by the Department of Housing and Community Development and approved by the California Building Standards Commission.	
			Proposed Law: This bill authorizes cities and counties to adopt stricter green building guidelines different from those otherwise established in the California Building Standards Code.	
AB 3018	Nunez	Introduced 2-22-08	Existing Law: Existing law contains various programs for job training and employment investment.	
		In Senate Labor and Industrial Relations Committee	Proposed Law: This bill would require a consortium of State agencies in conjunction with a variety of stakeholders to develop a comprehensive array of programs and strategies to assist the development of "clean and green technology sector" jobs and spur the development of the State's growing green economy.	
AB 3025	Lieber	Amended 5-22-08 In Senate	Existing Law: AB 939 requires each city, county, and regional agency to develop a source reduction and recycling program and to divert 50% of all solid waste destined to landfills.	
	Environmental Quality Committee		Proposed Law: This bill would prohibit, beginning January 1, 2012, a wholesaler from selling expanded polystyrene loosefill packaging material, unless the loosefill packaging material meets recycling content requirements starting January 1, 2012.	

Bill	Author	Status	Summary	Task Force Position
SB 55	Florez	Dead	 Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. Proposed Law: This bill would: Require a publicly owned treatment works (POTW) to submit certification to the regional water quality control board regarding any sewage sludge that is transferred from a facility for disposal or further processing; Require the sludge be certified to meet the requirements and standards for any pollutants listed in the waste discharge requirements for the POTW issued by the regional board; Require any POTW to submit additional certification to sludge haulers certifying 	Letter of Opposition sent 5-23-07
SB 74	Florez	Dead	that the waste product is non-hazardous. Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. Proposed Law: This bill would exempt, through January 1, 2014, Sales and Use taxes related to the sale, storage, use, or other consumption of biodiesel fuel wholly or partly derived from agricultural products, vegetable oils, recycled greases, or animal fats, or the wastes of those products or fats.	
SB 140	Kehoe	Dead	Existing Law: The Air Resources Board is required to conduct a comprehensive study on the impact of any regulations that establish a specification for motor vehicle fuel. Proposed Law: This bill would require the ARB to develop regulations requiring all diesel fuel sold to contain at least 2% renewable diesel (derived from vegetable oils, waste grease, or animal fat) no later than one year after a specified determination is made by the state Air Board. Within two years of the effective date of the regulations, at least 5% of all diesel fuel sold or offered for sale in the state for use in internal combustion engines would be required to contain renewable diesel fuel.	Letter of Support for 5-01-07 version sent 5-23-07

Bill	Author	Status	Summary	Task Force Position
SB 410	Simitian and Perata	Dead	Existing Law: Utilities are required to obtain 20% of their delivered power from renewable sources by 2010. The Energy Commission administers a renewable energy program that provides "supplemental energy payments" to renewable energy producers to make renewable energy sources more competitive with nonrenewable sources.	
			Proposed Law: This bill requires the California Energy Commission (CEC), in making awards from the Existing Renewable Resource Account to establish a specified production incentive and to make payments depending upon the availability of funding. Deletes the requirement that an existing facility generating electricity from biomass is eligible for funding only if it reports certain information on fuel usage to the CEC.	
SB 411	In Assembly		Existing Law: Utilities are required to obtain 20% of their delivered power from renewable sources by 2010. The Energy Commission administers a renewable energy program funded by a surcharge on consumers' energy bills.	
		Appropriations Committee 2 year bill	Proposed Law: This bill would require retail sellers of electricity, as specified, to increase their total procurement of eligible renewable energy so that at least 33% of retail sales are procured from eligible renewable energy resources no later than December 31, 2020.	
SB 429	Ducheny	Dead	Existing Law: Cal-EPA, the Waste Board, Water Board, each regional water quality control board, and the Department of Toxic Substances Control to maintain a list of all instruments and agreements restricting land uses imposed by those agencies and would require the list to provide specified information.	
			Proposed Law: This bill would require state agencies, including Cal EPA, various local agencies, including a local solid waste enforcement agency, to notify the building, planning, or engineering department in the affected city or county if it takes certain actions with regard to approving a remedial action, removal action, closure, corrective action, or any other type of environmental cleanup action. The bill would authorize that department to refuse to issue a building, land use, or development-related permit unless the applicable entity reviews the permit application and approves the proposed activity, or proposes measures necessary to protect the public.	

Bill	Author	Status	Summary	Task Force Position				
SB 470	Ashburn	Ashburn Vetoed 10-13-07	Existing Law: Existing law provides that any person who has the care or control of any animal that dies from any contagious disease shall immediately cremate or bury the animal.					
		Proposed Law: This bill would require the Waste Board to convene a working group to draft regulations for the emergency disposal or rendering of animal carcasses/livestock during a state of emergency, which would be adopted no later than July 1, 2009						
SB 660	Perata	Vetoed 10-14-07	Existing Law: The California Global Warming Solutions Act of 2006 requires the State Air Resources Board to adopt regulations to require the reporting and verification of emissions of greenhouse gases.					
			Proposed Law: This bill would establish the Strategic Research Investment Council, which would prepare and adopt a strategic research, development, and demonstration plan that establishes priorities and key expenditure categories for clean technologies.					
SB 735	Wiggins	ns Vetoed 10-11-07	Existing Law: Existing law requires the Director of Transportation, in consultation with the California Integrated Waste Management Board, to review and modify bid specifications related to the purchase of paving materials, and base, subbase, and pervious backfill materials, using recycled materials.					
			Proposed Law: This bill would require CalTrans to track the use of recycled and virgin materials for subbase, base and lean concrete base. It would require that CalTrans report to the Legislature on January 1, 2010 and biennially thereafter on the use of recycled materials that it is required to track.					
SB 826	Padilla	Vetoed 10-13-07	Existing Law: The Waste Board establishes the State's minimum standards for solid waste facilities, including the design, operation, maintenance, and reuse of these facilities.	Letter of Concern with 4-12-07				
			Proposed Law: This bill would request the Regents of the University of California to carry out various projects with respect to Native American education assigned to the State Librarian under existing law.	version sent on 5-23-07				
			<i>Previously</i> , this bill would have required the Waste Board to adopt state minimum standards to identify and mitigate environmental justice impacts in disproportionately affected communities in which solid waste facilities are located.					

Bill	Author	Status	Summary	Task Force Position
SB 842	Scott	Dead	 Existing Law: "Gasification" is the non-combustion thermal processing of waste using heat, pressure, and steam to convert materials directly into a gas for electricity generation. To qualify for diversion credit, a gasification facility must: Not use air or oxygen in the conversion process Not discharge air contaminants or emissions Not produce hazardous waste Remove all recyclable materials and marketable green waste materials to the maximum extent feasible Be in compliance with all applicable laws, regulations, and ordinances Any jurisdiction using the facility must have a 30% diversion rate Proposed Law: This bill would authorize a gasification facility's discharge of air contaminates or emissions to be regulated by the State Air Resources Board or Air Quality Management Districts rather than having an absolute zero threshold. 	Letter of Support sent 5-17-07
SB 898	Simitian	Chaptered 10-13-07 In Assembly Appropriations Committee	Existing Law: The Personal Income Tax Law provides for individual contributions to support specified funds. Proposed Law: This bill would extend the sunset dates for two voluntary contribution funds contained on the personal income tax return. Previously, this bill would have clarified that the public entity would have conducted a program to prevent the recurrence of solid waste disposal into municipal storm sewers.	
SB 966	Simitian and Kuehl	Chaptered 10-12-07	Existing Law: AB 939 requires local jurisdictions to implement a plan to manage household hazardous waste, including unwanted pharmaceutical drugs. Proposed Law: This bill would require the Waste Board to develop model programs for the collection and proper disposal of pharmaceutical drug waste. Previously, this bill would have authorized every drug retailer to conduct projects for the collection of drugs for proper disposal. If by January 1, 2011, less than 80 percent of the state's population has access to a collection opportunity within one mile of a retailer, the Department of Toxic Substances Control shall require every retailer to have a system in place for the acceptance and collection of drugs for proper disposal.	Letter of Support for 4-30-07 version sent 6-21-07

Bill	Author	Status	Summary	Task Force Position
SB 1016	Wiggins	Amended 6-10-08 In Assembly Natural Resources Committee 2 year bill	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. In determining compliance with AB 939, the State's diversion rate measurement system is used. The System has been found to be inaccurate, often resulting in non-representative diversion rates for jurisdictions. Proposed Law: This bill would revise the current diversion rate measurement system to a per-capita disposal based system, using 2003-2006 as a base year.	Comment Letter on draft revisions sent 7-11-07 and 1-31-08
SB 1020	Padilla	Amended 6-26-07 In Assembly Appropriations Committee 2 year bill	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. Failure to comply may subject the jurisdiction to penalties of up to \$10,000 per day. Proposed Law: Requires the Waste Board to adopt policies, programs, and incentives to ensure that the state achieves a 60% solid waste diversion rate by 2012 and a 75% diversion rate by 2020.	Letter of Opposition for 4-09-07 sent 4-18-07
SB 1021	Padilla	Chaptered 10-12-07	Existing Law: The California Beverage Container Recycling and Litter Reduction Act requires the Department of Conservation to implement a Statewide beverage container recycling program, including providing grant funding to local governments and non-profit agencies. Proposed Law: This bill would, for calendar year 2008, make available \$15 million in grant funding to place source separated beverage container recycling containers at multifamily homes.	Watch
SB 1036	Perata	Chaptered 10-14-07	Existing Law: Existing law requires the Energy Commission to certify eligible renewable energy resources and to award production incentives and allocate and award supplemental energy payments from the New Renewable Resources Account to cover above-market costs of purchasing electricity from eligible renewable energy resources. Proposed Law: This bill would eliminate the CEC administration of funds available for award to new renewable energy facilities in the form of supplemental energy payments (SEPs) pursuant to the Renewable Portfolio Standard (RPS). This bill would authorize the Public Utilities Commission (PUC) to allow recovery of future above-market costs pursuant to its ratemaking authority.	

Bill	Author	Status	Summary	Task Force Position
SB 1321	Correa	In Assembly	Existing Law: Existing law requires the Waste Board to develop and implement a source reduction and recycling program for schools in which schools are encouraged, but not required to participate.	
		Education Committee	Proposed Law: This bill would require a school district to consult with the local Community Conservation Corps or another recycler to provide and maintain a sufficient number of beverage container recycling bins at each school campus and public office, if the school district doesn't incur additional costs for its operation.	
SB 1357	Padilla	Amended 5-27-08 In Assembly Natural	Existing Law: The California Beverage Container Recycling and Litter Reduction Act requires a distributor of specified beverage containers to pay a redemption payment to the Department of Conservation.	Letter of Support sent 5-27-08
	·	Resources Committee	Proposed Law: This bill would allow up to \$20 million to be expended between July 1, 2009 to January 1, 2012, for grants for regional beverage container recycling and litter reduction programs. It would authorize the Department of Conservation on or after January 1, 2010 to use the actual cost of recycling specific beverage material types if the recycling rate is less than 5 percent, in determining the amount of processing payments.	
SB 1426	Calderon Amended 4-09-08 In Assembly Banking		Existing Law: Existing law imposes specified requirements on state agencies with respect to purchasing and using recycled products, including minimum content requirements.	
		and Professions Committee	Proposed Law: This bill would require the Department of General Services to post on its Internet Web site guidance to assist businesses in determining if their products, materials, goods, or supplies offered or sold to the state meet minimum content requirements.	
			Previously , this bill would have required in the case of carpet and related products, the Department of General Services to adopt at least two methods by which manufacturers may demonstrate compliance, as provided.	

Bill	Author	Status	Summary	Task Force Position	
SB 1473	Calderon	Amended 4-21-08 In Assembly Natural Resources Committee	Existing Law: The California Building Standards Law provides for the adoption of building standards by state agencies. Proposed Law: This bill would require the commission to adopt, approve, codify, update, and publish building standards that are designed to reduce direct and indirect environmental consequences, as specified, if no state agency has the authority or expertise to propose those standards. It would require each city or county to collect a fee from any applicant for a building permit, assessed at the rate of \$4 per \$100,000, which would be deposited in the fund and be available for the development, adoption, publication, and educational efforts associated with building standards.		
SB 1625	Corbett	Amended 4-21-08 In Assembly Natural Resources Committee	Amended 4-21-08 Existing Law: The California Beverage Container Recycling and Litter Reduction Act requires various beverage container sold or offered for sale in this state to be subject to a minimum refund value. Proposed Law: This bill would update California's Bottle and Can Recycling Law to		
SB 1663	Denham	Amended 4-21-08 In Assembly Natural Resources Committee	Amended 4-21-08 Existing Law: Existing law requires every person who engages in the transportation of waste or used tires to hold a valid waste and used tire hauler registration. Proposed Law: This bill would allow until June 30, 2012, a grant program for local governments and nonprofit entities that provide assistance to owners of farm		
SB 1672	Steinberg	Amended 6-16-08 In Assembly Existing Law: Existing law provides various funding sources for energy efficiency projects and related purposes. Proposed Law: This bill enacts the Renewable Energy, Climate Change, Career Technical Education, and Clean Technology Creation Bond Act to be submitted to the voters at a statewide election in 2010. If approved by the voters, the Act would authorize the issuance of \$2.25 billion in general obligation bonds to fund renewable energy, climate change, technical career education, and clean technology job creation programs.			

Bill	Author	Status	Summary	Task Force Position
SB 1723	Maldonado	Amended 4-30-08 In Assembly Natural	Existing Law: AB 939 requires local jurisdictions to divert 50% of all solid waste destined to landfills. Failure to comply may subject the jurisdiction to penalties of up to \$10,000 per day.	
		Resources Committee	Proposed Law: This bill would require a person who is the first to sell any agricultural or structural pesticide product for use in California, provide that it is packaged in a rigid, nonrefillable, high density polyethylene (HDPE) plastic containers of 55 gallons or less, and to establish or demonstrate participation in a recycling program.	
SB 1781	Committee on Environmental Quality	Environmental	Existing Law: The California Beverage Container Recycling and Litter Reduction Act requires a beverage distributor to pay a redemption payment for every beverage container sold or offered for sale in the state.	
			Proposed Law: This bill would, at the request of a local government, grant them enforcement authority over waste and tire haulers previously exercised by the waste board. It would not limit the Board's ability to take action, if deemed necessary. Moreover, it would remove a nonprofit drop-off program from the list of entities to which a refund is required to be paid and would delete the definition of, and all references to nonprofit drop-off programs.	



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Solid Waste

This RCP chapter is meant to take a close look at some of the challenges in solid waste management that our region is facing. It will provide a framework for taking the first steps toward a solution. Because this will be an ongoing process, there are some issues – such as hazardous waste, that have not been specifically addressed. However, it is implied that many of the policies described for solid waste management will also apply to management of hazardous wastes.

THE CHALLENGE

Waste comes from homes, businesses, and industrial enterprises. Between 1995 and 2005, our region disposed of approximately 33 million tons of municipal solid waste (MSW) into local landfills each year. The average resident disposes of approximately 2.5 pounds of trash a day while non-residential disposal adds up to 1.2 pounds disposed for every \$10 of sales receipts. Although we have made great strides in reducing per capita generation – in 1990, residential disposal was estimated at 3.1 pounds per day, existing landfills will not be enough to accommodate our ever-growing population.

Traditional solid waste management strategies have relied heavily on creating high capacity, regional landfills (megafills)

and, to a lesser extent in California, incineration technologies to address disposal issues. However, due to significant public opposition, unavailability of suitable land, environmental concerns, and the regulatory framework, it has become increasingly difficult to expand and/or site, permit, and operate new landfills and waste-to-energy (incineration) facilities. Federal, State, and local zoning regulations restrict the number of sites suitable for development. Restrictions on land use include areas with unstable soils and terrain, landslide-susceptibility, fault areas, seismic impact zones, land near airports, and land in 100 year flood plains. Potential landfill sites must consider migration control of leachate and methane, soil type to provide a firm foundation, hydrologic settings that will affect landfill layout and drainage characteristics, and a host of other factors. In addition, local public opinion plays a big role when landfills are being sited.4,5

Dwindling landfill capacity and increasing health and environmental concerns have forced both the region and the state to make concerted efforts at developing other waste management methods including reducing the amount of waste that goes into landfills. The costs for landfilling our garbage will continue to increase as landfill space decreases. These costs will ultimately be passed on to residents and businesses in the form of higher

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VOLUNTARY EXAMPLES OF EPR IN THE U.S.

Xerox's Asset Recycling Management Program - a model EPR program which has led to extensive product redesign. The program has generated substantial profits by maximizing recovery of the residual value of office equipment, which the company takes back at the end of its useful life.

Interface, a global carpet company, has a program to lease carpet and recycle it at the end of its life. The company has reduced manufacturing waste by 70 percent since 1996. This has resulted in a cumulative savings of \$336 million avoided costs from waste elimination activities.

Kodak's take-back and recycling program for single-use cameras has had marketing benefits in helping to dispel these products' image as throwaway items that quickly end up in the landfill.

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disposal fees and eventually, in conspicuous impacts to public health and the environment.

Overflowing landfills are only a symptom of a bigger problem — the mismanagement of our natural resources. The result of this mismanagement is evident in the mountains of garbage that we produce and the associated health and environmental impacts that result. For example, to obtain the resources used in the manufacturing and production of many of the goods that we use everyday, the mining industry moves an estimated 28 billion tons of soil and rocks each year (globally).⁶ A 1999 study puts this figure at 48.9 billion tons when biomass extraction is included and 8.2 tons per capita average global resource consumption. When broken down by country, figures show that on a per capita level, extraction of raw materials increases with development status.⁷

The goods produced from these resources are usually single-use products that we effortlessly replace or throw away. There is an inextricable link between our current level of resource consumption, the waste we produce, and many environmental problems. Mining leaves behind a wake of destructive impacts. From threatening local and global biological diversity through habitat destruction to increased chemical contamination, erosion, and silting of lakes and streams to toxic air pollution containing arsenic and lead emissions. Our current rate of natural resource extraction has already created health and environmental impacts that will last long into future generations.

THE PLAN

We will need a combination of both short and long term solutions to effectively address our overwhelming waste problem. In the short term, we will still need to rely heavily on landfills and, when local facilities have filled to capacity, exporting our waste to other areas, leading to higher trash rates and added traffic congestion and air pollution. In the long term, we will need to change the way we think about trash and move towards a system of waste prevention and minimization. The move towards this system will take time and require a variety of waste management strategies. Our goal is to achieve maximum diversion from landfills through emerging technologies with diversion credit.

Strategies for Managing Our Waste

Landfills today are technically sophisticated, highly regulated, and closely monitored by many local and state agencies. Methane and leachate collection systems are installed in many facilities and state-of-the-art leachate⁹ barriers (landfill liners) are required under current regulations. Landfill operations in Southern California have beneficial methane capture technologies that turn methane emissions into energy. Average landfill gas emissions are comprised of 50 percent methane. The Puente Hills landfill currently produces 50 MW (gross) of power from landfill capture operations which it sells to Southern California Edison.¹⁰

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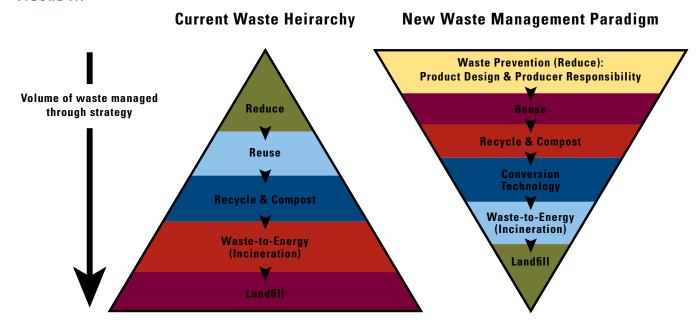
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Landfills fill a critical need today and will continue to be needed well into the future. Even as we employ all waste prevention, recycling, reuse, composting, and conversion technology strategies, there will always be some inefficiencies in the system and therefore, waste that will need to be disposed at a landfill. The challenge will be to change our ideas of resource consumption and waster and to begin to think of disposal to landfills as the last resort in waste management. Many of today's health and environmental concerns will become less of a problem as we reduce our garbage volume and become more selective about what we consider trash.

Our current infrastructure to manage waster focuses on disposal first, followed by recycling, reducing, and reusing. The water hierarchy envisioned for the future focuses on reducing first, then reuse, recycling, conversion technologies and finally disposal to land fill (see Figure 7.1).

Shrinking local landfill capacity is also forcing us to transport waste to more distant landfills. A prime example of this is the planned waste-by-rail system being developed by the County Sanitation Districts of Los Angeles County. The system is designed to address the projected shortfall of disposal capacity in Los Angeles County by transporting post-recycled waste

FIGURE 7.1



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WHAT ARE LOCAL COMMUNITIES DOING?

Many forward thinking communities in the SCAG region are already implementing and adopting policies to increase their waste diversion goals and ensure a better quality of life for their local residents.

- City of Los Angeles: 70 percent diversion by 2020; 90 percent by 2025
- City of Santa Monica: 70 percent diversion by 2010
- City of Pasadena: No waste to landfills and incinerators by 2040
- 16 cities/townships in San Bernardino County have partnered to educate their residents and businesses on waste reduction, reuse and recycling.

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to an out-of-county landfill. The rail system will have multiple starting points at large-scale materials recovery facilities throughout Los Angeles County. Existing rail lines will be used to transport the waste to Mesquite Regional Landfill, in Imperial County located approximately 35 miles east of Brawley. The 2,290 acre landfill is nearing the final stages of construction and is expected to be operational by 2011/2012. It is permitted to accept up to 20,000 tons of waste per day from L.A. County and 1,000 tons per day from Imperial, with a maximum capacity of 600 million tons of solid waste over a 100 year lifespan. Due to potential air quality impact that may result from solid waste rail operations, it is expected that L.A. County waste by rail operations will be consistent with strategies developed for the Air Quality Management Plan (AQMP) and the Regional Transportation Plan (RTP).

Although exporting waste is not a preferred waste management option, it is a necessary strategy for ensuring the County has a place to dispose of the garbage generated by County residents and businesses. Unlike other states, California does an excellent job of keeping solid waste within its borders. Only 1 percent of waste generated in California is exported out of state. In the SCAG region, less than 1 percent of our waste is exported outside of the region.¹⁴

Diverting Garbage Away from Landfills

In 1989, the legislature passed the California Integrated Waste Management Act (AB 939).¹⁵ This bill mandated a 50 percent

solid waste diversion¹⁶ rate by the year 2000 for all cities, counties, and applicable regional agencies in California, but did not include a plan or funding for achieving the diversion rate.

Since then, Californians have done a great job in reducing the amount of waste sent to landfills. Although not all individual jurisdictions have managed to achieve the 50 percent diversion rate, all jurisdictions are making good-faith efforts to comply with the unfunded mandate. The estimated diversion rate for California in 2006 is 54 percent. This diversion rate translates to 50.1 million metric tons of waste (out of 92.2 million metric tons of waste generated) that avoided disposal to landfills.¹⁷ Diversion is generally defined as the reduction or elimination of the amount of solid waste from solid waste disposal (to landfill or incineration). Thus far, only source reduction (waste prevention), recycling, reuse, and composting activities are considered diversion.

Economic Benefits of Diversion

Diversion activities create jobs, add local revenue, and help stimulate many economic sectors. Some employment opportunities created by these activities include government and private staffed collectors, recyclable material wholesalers, compost and miscellaneous organics producers, materials recovery facilities, glass container manufacturing plants, plastics converters, and retail used merchandise sales. A 2001 report released by UC Berkeley stated that, "diverting solid waste has a significantly higher (positive) impact on the economy than disposing it."

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Diversion also helps communities save money by avoiding payment of tipping fees on each ton of waste disposed. The UC Berkeley study estimated that statewide economic impacts from disposal and diversion at 1999 rates were approximately 17 to 20 percent higher than the impacts if all the waste had been disposed (see **Table 7.1**). This is because reuse and recycling are inherently value-adding, whereas disposal is not; and value-adding processes support jobs and economic activity.

The California waste stream is primarily composed of organic (food) waste, paper products, and construction and demolition debris. Harder-to-decompose items such as plastic, glass, metal, electronic, and hazardous wastes are also present in the waste stream in significant amounts. (see Figure: 7.2).

Reuse and Recycling

California hosts approximately 5300 recycling and reuse facilities, employing 84,000 people and generating an annual payroll of \$2.2 billion with \$14.2 billion in annual revenues. However, California's recycling market is still on shaky ground, especially because of competition from foreign recycling markets. Many countries will pay a premium for our recyclables because they lack their own raw materials. In an effort to support the local recycling industry, the Integrated Waste Management Board has developed the Recycling Market Development Zone (RMDZ) program. The program provides loans, technical assistance, and free product marketing to businesses that use materials from the waste stream to manufacture their products. Although this market development program is important, local govern-

TABLE 7.1 ECONOMIC IMPACTS OF 1999 WASTE GENERATION GOING TO DISPOSAL OR DISPOSAL AND DIVERSION

	Region		Impact on Economy				
			Output ^b (billions of dollars)	Total Income ^c (billions of dollars)	Value Added ^d (billions of dollars)	Number of jobs created	
All	Disposal only	7.5	18.0	6.8	9.0	154, 000	
California	Disposal and Diversion	9.2	21.2	7.9	10.7	179,000	
Southern	Disposal only	4.1	9.6	3.6	4.7	82,000	
Californiaa	Disposal and Diversion	5.1	11.3	4.2	5.6	95,000	

Table adapted from Goldman, G. and A. Ogishi, 2001. The Economic Impact of Waste Disposal and Diversion in California. A Report to the California Integrated Waste Management Board.

- ^a Southern California region includes all six SCAG region counties plus San Diego County.
- b Output impact is a measure of how the disposal sectors influence total sector sales in the economy.
- ^c Income impact measures income attributed to disposal-related economic sectors.
- ^d Value added is the increase in the value of goods and services sold by all sectors of the economy.

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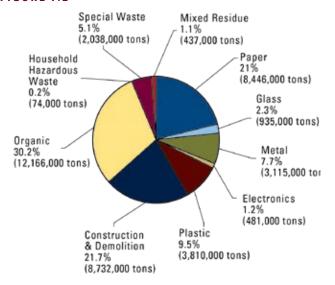
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ments have continually stressed the need for the State to take a leadership role in developing markets since our services and products are trading and competing on a global basis, and thus are susceptible to events/market fluctuations throughout the world. Based on the economic principle of supply and demand, recyclables will end up in landfills if markets are not developed or strengthened.

There are numerous benefits to recycling and reuse programs. Reuse and recycling reduce the need for landfilling and prevent pollution that may be caused by the manufacturing, transportation, and use of products from virgin materials (see Figure

FIGURE 7.2



Source: California Integrated Waste Management Board. 2004. Statewide Waste Characterization Study. (Publication # 340-04-005)

7.3). They help conserve natural resources (timber, water, minerals); sustain the environment for future generations; save energy and avoid fossil fuel use from extractive industries; decrease emission of GHGs that contribute to global climate change; protects and expands U.S. manufacturing jobs; and increases U.S. competitiveness.²²

A 1994 Tellus Institute study showed that with the exception of aggregate materials for road base, many materials show energy savings by using recycled materials instead of virgin materials. The range of differences in energy saved varies greatly. At the high end is aluminum for which the difference in virgin versus secondary production is 142.68 MMBtu per ton of intermediate product (i.e., it takes 142.68 MMBtu per ton more to process aluminum from raw ore than it does to process the same product from recyclables). At the low end is molten glass for which the energy difference is only 1.54 MMBtu per ton of product.²³ A more recent life cycle assessment study from ALCOA researchers has shown that it takes 95 percent less energy to recycle aluminum than to create it from raw materials.²⁴

Construction and Demolition (C&D) Debris

Construction and demolition debris comprises 21.7 percent of California's overall disposed waste stream. This equates to approximately 8.7 million tons of C&D debris disposed to landfill. Lumber debris makes up half of that figure, followed

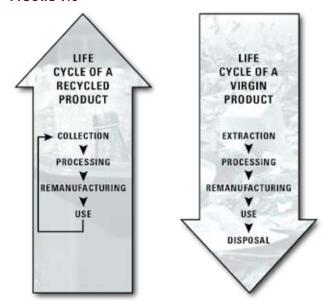
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by concrete, asphalt roofing, gypsum board, and composite/remainder C&D.²⁵

Addressing C&D waste prevention can be as simple as using best management practices during construction such as advanced framing, double checking measurements to reduce sizing mistakes, and using durable materials that need less frequent replacement. ²⁶ It also means using green building design principles to maximize the use of remanufactured, recycled, or more efficient materials or materials that are designed to be replaced in a modular manner. Unlike demolition waste, up

FIGURE 7.3



Source: Environmental Protection Agency. 1998. Puzzled About Recycling's Value? Look Beyond the Bin. EPA530-K-97-008. http://www.epa.gov/msw/recpubs.htm.

to 80 percent of construction waste is reusable or recyclable.²⁷ C&D diversion rates have reached as high as 97 percent on individual State of California projects, and are typically at least 50-75 percent in green buildings.²⁸

Cities are starting to institute green building ordinances that require maximum recycling of C&D debris for many types of new construction. Uniform statewide requirements for green building or C&D recycling ordinances do not yet exist, although state legislation has been introduced to address this issue. Currently, each city can develop its own requirements: defining the size, cost, and type of project that is subject to C&D recycling as well as the amount of material recycling required can differ a great deal from city to city.

The 2003 report to California's Sustainable Building Task Force provides a comprehensive and convincing study of the value of green building savings. It was found that although there were minimal increases of about 2 percent in up-front costs to add green building features, life cycle savings resulted in 20 percent of total construction costs – more than 10 times the initial investment. For example, an initial up-front investment of up to \$100,000 to incorporate green building elements into a \$5 million project would result in a savings of \$1 million in today's dollars over the life of the building.²⁹

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Food Waste, Organics, and Composting

Californians throw away more than 5 million tons of food scraps each year. Food waste makes up 14 percent of California's waste stream. This includes all food being disposed by residences, businesses, schools, prisons, and other institutions. Green material collection programs have been implemented in many cities and counties, but not until recently has collection of food scraps been considered. Management of food scraps provides additional opportunities to help meet the State's diversion goals as well as provide greater uses for this resource. The CIWMB suggests the following order for food scrap management: (1) prevent food waste, (2) feed people, (3) convert to animal feed and/or rendering, and (4) compost. Large events and venues, public facilities (e.g., public agency and school cafeterias), and private business such as restaurants and grocery stores could all be targeted for food waste diversion activities.³⁰

Decomposition of food waste and other organics are a major source of greenhouse gas emissions from landfills. Organic waste comprises 30 percent of waste disposed to landfills. That figure includes food scraps, textiles, composite organics, and green material like landscape and tree trimmings, grass clippings, and agricultural residues. Diverting organic wastes to composting prevents the production of methane, which is produced during decomposition under anaerobic (oxygen-lacking) conditions such as those found in landfills. Composting has many environmental benefits. In addition to reducing landfill volume and emissions by diverting organic waste, compost can be used in the following ways: to enhance garden and agricul-

tural soils, in wetland construction, as landfill cover, for erosion control, and in land/stream reclamation projects. Although there are environmental concerns associated with composting, primarily emissions and odor complaints, advancements in composting technologies and proper implementation of these technologies are able to overcome these concerns.

Conversion Technologies

Conversion technologies (CTs) refer to a diverse set of processes used to convert waste products into high-value goods such as industrial chemicals or gas, liquid, and solid fuels. Fuel products can be burned to produce energy or refined for higher quality uses to make a variety of industrial products.³¹ The attraction of CTs is their ability to convert landfill waste into products that can take the place of fossil fuels mined from natural resources.

CTs target *post-recycled* municipal solid waste residuals currently destined for disposal at landfills as their feedstock. That is, before waste is sent to a CT facility, it is sorted to make certain recyclables are removed and collected. Many CT proponents feel CTs with recycling offer a much better alternative than incineration or disposal to landfill. In addition, CTs have the capability of recovering additional recyclable materials, especially metals and glass that might otherwise not be feasibly recoverable since it operates at an optimum level when recyclables are extracted prior to the conversion process.

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A study conducted for CIWMB compared a life cycle analysis of landfills (with various stages of landfill gas collection), waste to energy (WTE) combustion (incineration), and hypothetical conversion technologies. It was found that the hypothetical CT scenario could potentially have a two times lower net energy consumption when compared to the incineration scenario and up to 11 times lower than landfill without energy recovery. The CT scenario included energy savings (10-20 percent of the total net energy savings) from additional materials recycling prior to conversion and the offsets associated with the prevention of extraction and production of virgin materials. However, the environmental benefits of conversion technology scenarios are highly dependent on their ability to achieve high conversion efficiencies and high materials recycling rates.

At the present time, conversion technologies are considered ineligible as a diversion strategy under AB939 and the permitting and siting of CT facilities has been met with opposition. Conversion technologies have been around for decades, but it is only recently that their applicability to solid waste management has begun to be fully developed. At this time, the successful development and use of CTs is occurring in Japan, Germany, and the UK.

Three main categories of conversion technologies are being developed for management of solid waste - thermal, chemical, and biological conversion – as well as systems that utilize a combination of 2 or more categories of conversion to more effectively convert the various components of the waste stream.

- Thermal (thermochemical) conversion is characterized by processes that use high temperatures to achieve high conversion rates of dry, organic material. These processes include gasification, pyrolysis, plasma arc, and catalytic cracking. Advanced thermal conversion (advanced thermal recycling) primarily refer to technologies that employ only pyrolysis and/or gasification to process municipal solid waste. The primary products of thermochemical conversion technologies include: fuel gas (syngas CO₂, CO, CH₄, H₂), heat, liquid fuel, char, and ash. 4
- Biological (biochemical) conversion processes rely on microorganisms to break down the biogenic, organic fraction of the waste stream. These processes are focused on the conversion of biodegradable organics found in MSW residue into high energy products. The products of bioconversion are biogas (CH₄ and CO₂), biofuel (ethanol, biodiesel, fuel oil, etc.), and residue that can be used for compost. Biogas usually has less energy (Btu/ft³) than syngas produced by thermal conversion systems.³⁵ Non-biodegradable organic feedstocks, such as most plastics, are not convertible by biochemical processes.

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LIFE CYCLE ASSESSMENTS

Life Cycle Assessments (LCAs) need not be limited to analyzing the life cycle of a single product. LCA is a methodology that can analyze the interactions of a technological system with the environment. It can be used as a decision-making tool to help weigh environmental and health impacts between various waste management options. If used correctly,³⁶ LCAs can answer questions like, "Are impacts from manufacturing aluminum cans from raw material really much worse than the impacts from re-manufacturing of recycled aluminum and if so, how much worse?" and "Have the costs of environmental and health impacts, such as losing ecosystem services10 and the loss of worker days been calculated into the costs?" Governments, private firms, consumer organizations, and environmental groups can all use LCA as a decision support tool.37

PRELIMINARY DRAFT

 Chemical (physicochemical) conversion processes use lower temperatures than thermal conversion and have lower reaction rates. These processes rely on chemical reactions and are focused on the conversion of organic wastes into high energy products. Processes, such as acid hyrolysis, thermal depolymerization, and fermentation, typically focus on generating fuels such as ethanol or biodiesel.

Maximizing Diversion - A New Paradigm

In the last 10-15 years there has been a strong movement to recognize the link between the waste we generate and the natural resources we consume. Today's economy is based on the extraction of "cheap" resources to make products that are largely designed to end up in landfills. Waste is a reflection of our inefficient use and mismanaged consumption of finite, natural resources. The 2004 Growth Vision recognized this and stated that "management of solid waste (and hazardous waste) must be sustainable in order to efficiently manage natural resources and in order to protect the environment today and in the future."

A new paradigm is taking shape that builds on all the waste diversion strategies that were previously discussed. Although the three Rs of solid waste management – Reduce, Reuse, Recycle – still hold true, a renewed emphasis on the first R is taking hold. We need to go beyond current waste diversion strategies by addressing waste elimination at the source and

distributing the responsibility for waste on both the consumer and the producer. Instead of managing just the end results of our consumption-related activities (trash), we focus on resource conservation and management. The aim is to create a whole system approach to the way materials flow through society, where all discarded materials are resources for others to use and resource conservation and recovery is built into every process. It also means designing and managing products and processes to reduce impacts to the environment, volume and toxicity of waste and materials, and waste of natural resources, as well as managing materials flow to prevent the creation of un-recyclable products. We can probably never achieve 100 percent materials efficiency but, "we can get darn close!" 38

Strategies to maximize diversion look at the entire product life cycle to assess the true economic, environmental, and health-related costs of manufacturing products. Life cycle assessments³⁹ (LCAs) attempt to appraise all the inputs and outputs that are associated with the creation and disposal of a product. Included are the direct inputs to the production process, associated wastes and emissions, and the future (downstream) fate of the product. Using aluminum recycling and production as an example, downstream effects that should be analyzed would include the energy consumption and emissions of smelters used to melt the raw ore versus recyclable cans and the ultimate fate and use of the product. In some cases, recyclables that have been locally collected are exported for use overseas.

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LCAs and similar applications can identify deficiencies in a process and help compare the benefits and costs of multiple systems. By evaluating the existing materials flowing through a community, we can identify opportunities to take what one business considers a byproduct or waste and provide that material to another business that can use that material as production feedstock. In addition, an LCA that compares recycling systems with other waste management strategies (such as, disposal at

Promoting these types of strategies is good regional policy as existing businesses can save money by creating efficiencies in production and government agencies and other organizations have better analytical tools for making important decisions.⁴⁰

landfills or disposal at conversion technology facilities) would

provide useful information making future waste management

actions. Such an LCA for California's waste management

system would be a useful tool for local policymakers.

Product Stewardship and Extended Producer Responsibility

This new paradigm requires that we change the current solid waste management hierarchy to one that focuses on product stewardship and extended producer responsibility principles because one of the most effective ways to manage waste is to prevent it from being produced in the first place.

Product stewardship is a product-centered approach to environmental protection. It extends the responsibility for a product to everyone involved in the product lifecycle. This

means that manufacturers and producers design products that are recyclable, reusable, less toxic, less wasteful, and/or more durable. It also means getting rid of excessive packaging such as the cardboard box that encloses a plastic medicine bottle. Retailers and consumers are then responsible for ensuring that proper recycling and disposal of products occur.

Product stewardship is often used interchangeably with Extended Producer Responsibility (EPR). However, EPR focuses the brunt of the responsibility for creating an environmentally compatible product on the manufacturers and producers of the product. Producers retain responsibility for their end-of-life (EOL) products. This provides them with incentives for designing products for recycling, reuse and easy dismantling.41 For example, businesses making products that are leased, such as HP (photocopiers) have long known that their products will be returned so they have learned to make remanufacturing profitable. When businesses are compelled to internalize the true costs of wasteful packaging and inefficient material use, there is incentive to create more innovative and efficient waste management strategies.

EPR policies should give producers an incentive to design products that:

- Use fewer natural resources;
- Use greater amounts of recycled materials in manufacturing;
- Can be reused:

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PRELIMINARY DRAFT

- Can be more easily treated/dismantled and recycled;
- Reduce or eliminate the use of hazardous substances or materials in the manufacturing of products.

The EPR approach should be seen as a system for preventive environmental policy-making. EPR promotes a sustainable approach to resource use and reduces the quantity of solid waste going to a landfill, by diverting end of life products to re-using, recycling, or other forms of recovery. Many corporations are recognizing the value of EPR and have developed voluntary EPR strategies in their organizations.

The Solid Waste Action Plan

All of the strategies that have been laid out are meant to provide guidance and background for implementing the action plan that follows. The goal attempts to encapsulate the vision for solid waste and resource management that will move our region toward a more sustainable and healthier future. This will require a coordinated effort of implementing all of the short-term and long-term policies/actions that are contained within this plan. Some, of which require changing how our whole region thinks about solid waste management issues.

Recycling, composting, conversion technologies, and landfills all play a part in moving towards maximizing diversion. We will need to employ this mix of strategies to handle current waste disposal needs as we transition to a system of real natural resource management. Even if we achieve close to 100 percent materials efficiency, there will still be residual waste that will

need to be disposed at landfills or managed with conversion technologies.

SOLID WASTE GOALS

 A region that conserves our natural resources, reduces our reliance on landfills, and creates new economic opportunities in the most environmentally responsible manner possible.

SOLID WASTE OUTCOMES

- All SCAG region jurisdictions should meet a 40 percent waste disposal rate ⁴² by 2035 to minimize disposal to landfill provided appropriate utilization of technologies are permitted and diversion credit is provided by the State for waste management strategies including, but not limited to, appropriate and environmentally sound recycling, composting, and conversion technologies with diversion credit as well as other actions and strategies contained in this chapter, such as product stewardship and extended producer responsibility.
- Conversion and other alternative technologies should be available as a diversion strategy in the next five years with one or more new conversion technology facilities sited in the SCAG region by 2020.



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			Constrained Policies	Potential for Direct/Indirect Benefits										Other Benefits	
IGR/Best Practices	Legislation	Coordination		Land Use	Transportation	Air Quality	Water	Energy	Open Space	Economy	Security	Solid Waste	Public Health	Climate Change	
SCAG Policies (SCAG policies shall be subject to consideration for future Overall Work Plans)															
		х	SW-1 SCAG shall encourage all levels of government to advocate for source reduction and waste prevention.			X	х	х		Х		Х	х		
х		х	SW-2 SCAG shall encourage policies that: (a) promote the expansion of recycling programs and facilities that provide local recycling services to the public and private sectors and (b) encourage the development of viable, local, and sustainable markets to divert materials from landfills (e.g., recycling markets).			Х	х	х		х		х		х	
х			SW-3 SCAG shall adopt and implement a recycled content procurement program and participate in programs that promote the purchase of recycled content products			Х	х	х		Х		х		х	
		х	SW-4 SCAG shall support and encourage the CIWMB to conduct comprehensive life cycle assessments of all components of the waste management practices including but not limited to, waste disposal to landfills, composting, recycling, and conversion technologies. A comprehensive analysis must include environmental impacts, health effects, emissions, use of resources and personnel, costs of same to collect wastes and recyclables, transportation costs (local, within U.S. or international), processes to separate recyclables, and production of end products using collected recyclables and raw materials.			х	х	х				х		х	
	х		SW-5 SCAG shall continue to support and encourage legislation that advocates for the elimination of unnecessary duplication and/or restrictive regulations that hinder recycling, reuse, composting and conversion of solid waste and redefines conversion technologies as a diversion strategy to allow development of these facilities in the SCAG region.			X	х	х		х		х		х	
		х	SW-6 SCAG should coordinate region-wide initiatives on source reduction, reuse, recycling, composting, and conversion technology to increase economies of scale.			Х	х	х		Х		Х		х	
		х	SW-7 SCAG should encourage the equal distribution of industrial impacts among all income levels from all types of solid waste management facilities including recycling, composting, and conversion technology facilities.	x		х	х	х		Х		х		х	
		х	SW-8 SCAG shall support the development of public education and outreach efforts to increase awareness of the benefits of a regional policy to maximize diversion.			Х	х	х		Х		х		х	



									Potential for Direct/Indirect Benefits									
IGR/Best Practices	Legislation	Coordination	Constrained Policies	Land Use	Transportation	Air Quality	Water	Energy	Open Space	Economy	Security	Solid Waste	Public Health	Climate Change				
Local Government Policies																		
x			SW-9 Local governments should update general plans to reflect solid waste sustainability issues such as waste reduction goals and programs (1996 RCP; 135).	х		Х	х	Х	х			х		х				
х			SW-10 Local governments should discourage the siting of new landfills unless all other waste reduction and prevention actions have been fully explored. If landfill siting or expansion is necessary, landfills should be sited with an adequate landfill-owned, undeveloped land buffer to minimize the potential adverse impacts of the landfill in neighboring communities.	х		х	x	х	х	х		х		х				
х			SW-11 Local governments should discourage exporting of locally generated waste outside of the SCAG region. Disposal within the county where the waste originates shall be encouraged as much as possible. Green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with AQMP and RTP policies should be required.	х	х	х	x	х	х	х		х	Х	х				
Х			SW-12 Local governments should adopt Zero Waste goals and practices and look for opportunities for voluntary actions to exceed the 50% waste diversion target.			Х	х	х		х		Х		х				
X			SW-13 Local governments should build local markets for waste prevention, reduction, and recycling practices.			Х	Х	Х		Х		Х		х				



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				Potential for Direct/Indirect Bene				enefit	ts	Other Benefits				
IGR/Best Practices	Legislation	Coordination	Constrained Policies	Land Use	Transportation	Air Quality	Water	Energy	Open Space	Economy	Security	Solid Waste	Public Health	Climate Change
x	x		SW-14. Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Construction reduction measures that should be explored for new and remodeled buildings include: • Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities. • An ordinance that requires the inclusion of a waste management plan that promotes maximum C&D diversion. • Source reduction through (1) use of building materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed building materials, and (5) use of structural materials in a dual role as finish material (e.g. stained concrete flooring, unfinished ceilings, etc.). • Reuse of existing building structure and shell in renovation projects. Building lifetime waste reduction measures that should be explored for new and remodeled buildings include: • Development of indoor recycling program and space. • Design for deconstruction. • Design for flexibility through the use of moveable walls, raised floors, modular furniture, moveable task lighting and other reusable building components.	х		х	х	x	х	x		x		х
х	х		SW-15 Local governments should develop ordinances that promote waste prevention and recycling such as: requiring waste prevention and recycling efforts at all large events and venues; implementing recycled content procurement programs; and instituting ordinances to divert food waste away from landfills and toward food banks and composting facilities.			Х	х	х		х		х		х
х			SW-16 Local governments should support environmentally friendly alternative waste management strategies such as composting, recycling, and conversion technologies.			х	х	х		х		х		х
Х			SW-17 Developers and local governments should develop and site composting, recycling, and conversion technology facilities that are environmentally friendly and have minimum environmental and health impacts.	х		Х	х	х				х		х
X		Х	SW-18 Developers and local governments should coordinate regional approaches and strategic siting of waste management facilities.	Х		Х	Х	Х				Х		Х
X			SW-19 Developers and local governments should facilitate the creation of synergistic linkages between community businesses and the development of eco-industrial parks and materials exchange centers where one entity's waste stream becomes another entity's raw material by making priority funding available for projects that involve co-location of facilities.	x		X	x	x				x		x
х			SW-20 Developers and local governments should prioritize siting of new solid waste management facilities including recycling, composting, and conversion technology facilities in conjunction with existing waste management or material recovery facilities.	х		Х	х	X				х		Х
X			SW-21 Local governments should increase programs to educate the public and increase awareness of reuse, recycling, composting, and green building benefits and raise consumer education issues at the County and City level, as well as at local school districts and education facilities.			Χ	х	х		Х		х		Х



				F	Potent	tial f	or Di	rect/	Indire	ect Bo	enefit	S		her refits
IGR/Best Practices	Legislation	Coordination	Constrained Policies	Land Use	Transportation	Air Quality	Water	Energy	Open Space	Economy	Security	Solid Waste	Public Health	Climate Change
Stat	e an	d Fe	deral Government Policies		,									
	Χ		SW-22 CIWMB should create waste diversion incentives to increase waste diversion past 50% including credit for conversion technology.			X	Х	Х		х		Х		Х
	Х		SW-23 The State and Federal governments should develop and implement new and existing legislation that requires recycled content procurement programs, favoring the purchase of recycled and recyclable products or products with built-in EPR design in all state and federal agencies.			Х	x	х		х		x		х
	X		SW-24 Federal and State governments should explore financial incentives such as tax credits, subsidies, and price supports for waste diversion activities that include waste reduction, recycling, composting, and conversion technologies.			х	х	х		х		х		х
	X	х	SW-25 CIWMB, Air Resources Board, and the California Water Resources Board should coordinate to address regulatory challenges and streamline the permitting process for solid waste conversion and composting technologies.			х	х	х				х		х
	X		SW-26 The Federal government and CIWMB should establish policies that provide (a) diversion credit for beneficial use of post-recycled, solid waste residuals managed at non-burn conversion technology facilities, and (b) separate and remove conversion technologies from the definition of "transformation."			х	х	х	х			х	X	х
	Х		SW-27 Federal, State, and local governments should support and encourage federal and state incentives for the research and development of pilot or demonstration projects for solid waste conversion technologies.			х	х	х	х			Х		х
		Х	SW-28 CIWMB should do the following to improve education and awareness of solid waste management issues: (a) actively promote education regarding reuse, recycling, composting and solid waste conversion technology programs; (b) provide information concerning the costs and benefits of these programs to local governments; and (c) facilitate state and local government coordination of consumer awareness programs to minimize unnecessary duplication of effort in solid waste outreach programs carried out by local government.			Х	х	х	х	х		х		х
	X		SW-29 The Federal government should provide funding and support for continuation of public education programs on waste management issues.			X	X	х	X	X		X		х



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				Potent			or Di	rect/l	Other Benefits					
IGR/Best Practices	Legislation	Coordination	Strategic Initiatives	Land Use	Transportation	Air Quality	Water	Energy	Open Space	Economy	Security	Solid Waste	Public Health	Climate Change
State and Federal Government Initiatives														
	х		SWSI-1 Federal, State and local governments should support and implement source reduction policies which promote product stewardship through the following actions: • Create incentives for participation in Product Stewardship and Extended Producer Responsibility (EPR) initiatives such as, encouraging public-private partnerships with product stewardship goals (e.g. The European Green Dot system) and offering incentives to producers who use recycled content to encourage growth in the recycled contents market. • Create ordinances with EPR policies that require producers and manufacturers to produce "sustainable" packaging and products, develop life cycle assessments for products, as well as, support the development of infrastructure and markets for the recycling and reuse of these products. EPR principles that should be included are: increasing the useful life of products through durability and reparability; increasing production efficiency to produce less production waste and less packaging waste; increasing recyclable material content and reducing virgin material content; facilitating material or product reuse; and decreasing of the toxicity of products. Packaging should be easily recyclable or biodegradable based on any number of EPR strategies including, Design for the Environment (DfE) or Design for Disassembly (DfD) principles. For example, businesses such as, takeout food distributors, should utilize packaging that is compatible with recycling and composting options available.		x	x	х	x	х	х		x	х	х
	х		SWSI-2 Federal, State and local governments should create tax incentives that help companies derive profit from resource efficiency. Actions such as the following would be included: • Institute Pay As You Throw (PAYT) solid waste disposal systems. • Require that companies take back certain types of packaging for reuse or recycling:		х	X	х	х	х	х		x	х	х

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- ¹ California Integrated Waste Management Board. Annual Summary Report: Waste Flow by Origin. Multi-year Countywide Origin Summary. Data retrieved (June 2007) from http://www.ciwmb.ca.gov/LGCentral/DRS/Reports/Orgin/WFOrginAnnual.asp.
- ² California Integrated Waste Management Board. June 2007. Estimated Residential Disposal Rates. http://www.ciwmb.ca.gov/LGCentral/Rates/Disposal/Resident.htm.
- 3 California Integrated Waste Management Board. June 2007. Estimated Non-Residential Disposal Rates. http://www.ciwmb.ca.gov/LGCentral/Rates/Disposal/NonResid.htm.
- ⁴ Environmental Protection Agency. 1995. Decision Maker's Guide to Solid Waste Management, Volume II. Washington DC.: U.S. EPA Office of Solid Waste.
- ⁵ Walsh, P. and P. O'Leary. 2002. Evaluating a Potential Sanitary Landfill Site. Waste Age. May 2002:74-83.
- ⁶ Fishbein, B., Ehrenfield, J. and J. Young. 2000. Extended Producer Responsibility: A Materials Policy for the 21st Century. New York: INFORM, Inc.
- Schandl, H. and N. Eisenmerger. 2006. Regional Patterns in Global Resource Extraction. Journal of Industrial Ecology 10(4):133-147.
- 8 Ibid.
- 9 Leachate is a concentrated chemical soup produced as water percolates through decomposing garbage in a landfill. Toxic chemicals are produced or leached from the decomposition of both toxic and non-toxic trash.
- 10 Sanitation Districts of Los Angeles County. Puente Hills Gas-to-Energy Facility. http://www.lacsd.org/info/energyrecovery/landfillgastoenergy/puentehillsgastoenergy.asp
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- ¹² California Integrated Waste Management Board. 1997. Waste Board Approves Permit for Regional Landfill in Imperial County. Notice 97-031. http://www.ciwmb.ca.gov/PressRoom/1997/mar/NR031.HTM
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- ¹⁵ Public Resources Code (PRC), Section 41780.
- 16 Diversion is generally defined as the reduction or elimination of the amount of solid waste from solid waste disposal (to landfill or incineration). Source reduction (waste prevention), recycling, reuse, and composting activities are considered diversion.
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- 20 Ibid.
- ²¹ California Integrated Waste Management Board. 2007. Recycling Market Development Zones. http://www.ciwmb.ca.gov/RMDZ/.
- ²² Environmental Protection Agency. 1998. Puzzled About Recycling's Value? Look Beyond the Bin. EPA530-K-97-008. http://www.epa.gov/msw/recpubs.htm.
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- 26 Alameda County Waste Management Authority. 2006. 2006 Builders Guide to Reuse and Recycling: A Directory for Construction & Demolition Landscaping Materials. http://stopwaste.org/docs/build ersguide-05.pdf.
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- ³⁴ California Integrated Waste Management Board. 2004. Evaluation of Conversion Technology Processes and Products.
- 35 URS. 2005. Conversion Technology Evaluation Report. Prepared for The County of Los Angeles Department of Public works.
- 36 The Society for Environmental Toxicology and Chemistry (SETAC) has defined guidelines for the stages of a generic product life cycle that muse be considered in LCAs (Tan and Culaba, 2002).
- ³⁷ Tan, R. and Culaba A. (2002) Environmental Life-Cycle Assessment: A Tool for Public and Corporate Policy Development, available from The American Center for Life Cycle Assessment, available at: http://www.lcacenter.org/library/pdf/PSME2002a.pdf
- 38 Zero Waste New Zealand Trust, 2003. Getting There! The Road to Zero Waste. Aukland: Envision New Zealand, Ltd.; Zero Waste International Alliance, 2007
- 39 Also referred to as Life Cycle Analysis
- 40 Chelsea Center for Recycling and Economic Development. N.d. Assessing the flow of materials in a region: lessons learned from three Massachusetts communities.
- 41 Lindhqvist, T. Extended Producer Responsibility in Cleaner Production. Lund University. The International Institute of Environmental Economics.
- ⁴² Waste disposal rate means the amount of waste sent to landfills. This disposal rate roughly translates to a 60% diversion rate but with the caveat that strategies not counted under the current definition of diversion (such as conversion technologies and certain types of source reduction efforts) are credited as diversion.

Siting Organics Diversion Facilities CIWMB's Approach

June 19, 2008

Los Angeles County Solid Waste Management Committee/ Integrated Waste Management Task Force











CIWMB Strategic Directive 6.1

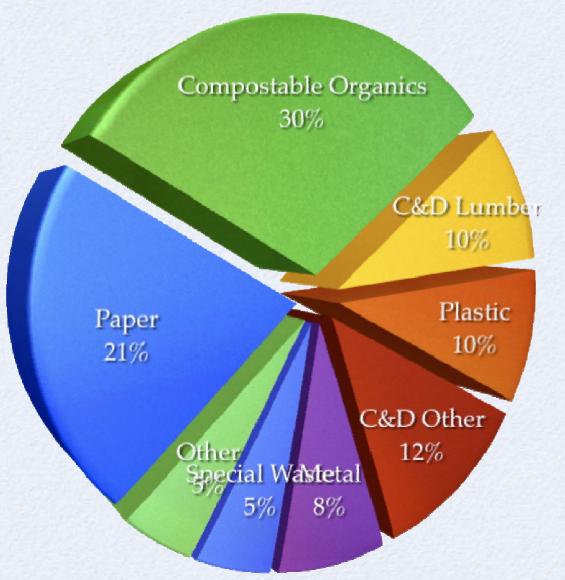
- In February 2007, Waste Board called for 50% reduction in organics disposed in landfills by 2020
- Necessitating 50-100 new or expanding facilities that produce compost, biofuels or bioenergy*



*CIWMB estimate

Organics

2004 Statewide Waste Characterization Study



- 71% Of carbon-based organics: compostable organics, paper, lumber and plastic
- Compostable organics: food (15%), leaves, grass, prunings, trimmings, branches, stumps and manures

50% Diversion

- · CA 2006 Baseline
- 29.7 million tons of organics out of
 41.9 million tons of disposal in CA
- 35% or 15 million tons of organics need to be diverted
- LA County 2006 Baseline
- 4.4 out of 12.7 million tons need to be diverted
- ADC constitute 0.6 million tons; BU & offsite composting 0.07 million tons







Infrastructure

- · California
- 96 New facilities to process 500 tpd each
- If 30% is diverted to CT,67 new facilities toprocess 500 tpd each



Los Angeles County

- 16 Existing facilities that process 1,500 tpd of green materials in total
- 25 New facilities to process 500 tpd



Policy Roadmap













Siting & Capacity Development

Since January 2008, the Board surveyed 250 stakeholders and conducted 50 interviews and 2 workshops.

Key questions are:

- What is the desired outcome?
- How would the Board interact with other agencies?

- What could the Board and its staff do?
- What is the Board doing already and what would be a new initiative?

- Participants: local planning directors, LEAs, recycling coordinators, solid waste authorities, air districts, RWQCB, facility operators, industry representatives and environmental organizations
- Participants' input resulted in 8 outcomes



Coordination of governmental agencies

- Form an executive group with CalEPA, ARB, CAPCOA, SWRCB and RWQCB
- Identify goals and methodologies and establish subgroups to work on specific tasks.



Coordination of facility regulatory process

- Streamlined permitting process that flows easier between regulatory entities
- Regulatory review includes:
 ADC, food waste composting,
 BU issues, farm and ranch organic diversion, and green material contamination







Board as a facilitator and repository for research and studies

- Initiate research categorization and posting of studies and results
- Emission levels for different types of feedstocks, cost effective BMPs, location and distance of facility from point of generation, thorough study of CTs, health studies relating to odors, life cycle analysis contract, and BMP projects underway
- Life cycle analysis contract and BMP projects underway

Informational resources and tools

- Publicize and make accessible research and studies
- Integrated computer information system
- Model software to provide full cost accounting and net environmental benefits
- Roster of staff that are technical experts





Adequate planning capacity



- Investigate requiring local plans to account for organics diversion capacity
- Hold meetings with jurisdictions to develop an implementation plan
- Provide to jurisdictions information on areas where facilities can be expanded or sited
- Allow agricultural land for zoning of organic based processes

Education outreach

- Educate public on environmental and health risks and benefits of organics diversion
- Range of beneficial uses: improve soil/crops, water conservation, energy production and GHG reduction
- Examples of well run facilities and local oversight for safe operation



Enforcement strategy



- Compliance with state minimum standards, federal laws, and permit terms and conditions
- Operation acceptable to the community
- Include BMPs and BACTs in discussions with stakeholders

Economic incentives





- Identify funding sources and develop potential proposal, such as ADC fee
- Provide low interest loans or debt financing for existing facilities to upgrade to meet new rules or for demonstrations of new technology or pilot projects for CT



Questions?