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November 8, 2013

Mary Nichols, Chair  
California Air Resources Board  
1001 I Street, P.O. Box 2815  
Sacramento, California 95812

RE: 2013 Scoping Plan Update – Waste Management Sector

Dear Ms. Nichols:

The Solid Waste Association of North America (SWANA) is the world's largest association of solid waste professionals (8,200 members). SWANA's California chapters represent more than 900 members. SWANA is committed to advancing the practice of environmentally and economically-sound management of municipal solid waste. SWANA's California Legislative Task Force (LTF) is responsible for representing the California Chapters on legislative and regulatory issues. The LTF continues to support an integrated approach to align California's energy, waste, and environmental policy objectives. Our goal is to work collaboratively to achieve a practical, feasible, and financially sustainable framework for greenhouse gas reduction and waste reduction.

The LTF strongly supports the waste prevention principles in the Overview of the Waste Management Sector Plan, including environmentally preferred purchasing by the state of California and Product Stewardship / Extended Producer Responsibility. We are concerned, however, with some elements of the Waste Sector Management Plan that would move California towards an inflexible, prescriptive approach to municipal solid waste management and remove the local primacy that has been a cornerstone of meeting the waste diversion requirements of AB 939. Local differences in demographics, physical setting, available infrastructure, environmental concerns, permitting barriers, fiscal condition, and other factors effect what approaches are feasible and effective.

ORGANIC WASTE DIVERSION. CARB and CalRecycle have proposed in the Waste Sector Management Plan and in the Scoping Plan Update Discussion Draft that phasing out organic materials at landfills and/or consider including landfills in the Cap-and-Trade program be included among the key recommended actions. Additional actions are recommended that would assist in achieving the goals of reducing GHG emissions at landfills and further developing biomass resources into end-products such as bioenergy and compost.

The LTF believes that CARB and CalRecycle should develop a phased, adaptive approach to organic waste management that lays the groundwork to allow the necessary infrastructure to be put in place over the next 5-10 years.

Starting with bans or emissions caps will only create unintended consequences, such as organic material being exported out of the state or managed in unintended ways. Instead, we recommend that the first round of actions focus on funding for infrastructure development, siting and permitting of new organic waste management facilities, incentives for large commercial generators to participate in organic waste management programs, and developing more accurate GHG emission factors for various materials, processes and landfill emissions. After these actions are implemented for 5 years, CARB and CalRecycle should reevaluate progress and determine the most important steps for the next phase, which can be reflected in the next Scoping Plan Update (in 2018-19).

**DEVELOPMENT OF LIFE CYCLE GUIDELINES.** The goal CARB has set forth is for California to take ownership of the GHG emissions and impacts of materials leaving California. Despite the stated goal and based on information provided in the Waste Management Sector Plan, the life cycle analysis for “recycling” continues to disregard the GHG emissions of recyclable materials management/remanufacturing once they leave the California borders. This is extremely troublesome given that in the calendar year 2010, only 2.3 million tons of collected recyclable materials were remanufactured in the State while the remaining processed materials in the amount of 22 million tons were mostly managed in the Pacific Rim Countries for which a little or no data on GHG emission is available. As such, the LTF questions the validity and/or appropriateness of the recommendation provided in the Waste Management Sector Plan

The LTF strongly recommends a performance-based approach to achieving GHG reductions in the waste management sector. A performance-based approach requires robust science-based lifecycle analyses. The development of guidelines for effective life-cycle analysis is integral in maximizing the effectiveness of any measure which goal is to reduce GHG emissions. The LTF is prepared to work cooperatively with experts and/or state agencies developing such guidelines. These guidelines must include:

- Local factors that may have an effect on the outcome.
- The impacts of shipping recyclable materials to other states and nations for processing,

The guidelines must allow local planners to prioritize technologies and identify necessary market development. Additionally, we support CARB and CalRecycle’s proposal to streamline permitting processes and address conflicting regulatory requirements, including cross-media issues, especially for new and upgraded composting and anaerobic digestion facilities.

**DEVELOPMENT OF INFRASTRUCTURE AND MARKETS.** The development of waste processing and management infrastructure and expansion of recycled product markets are also essential. As noted in the Waste Sector Management Plan Technical Papers, an enormous amount of new infrastructure will be necessary to achieve the GHG reduction goals proposed by CARB and CalRecycle, particularly for organic waste. Collaboration between organizations such as ours

with CalRecycle and the ARB to overcome the regulatory and budgetary challenges faced by both the public and private sector in developing new infrastructure is critical.

In summary, the LTF believes that a partnership to jointly develop a practical and sustainable pathway toward meeting the goals of AB32 and AB341 is the best approach. We look forward to the opportunity to work with you.

Sincerely,



Jason Schmelzer

SWANA Legislative Advocate

*Attachment 1: SWIG comments dated 7/12/2013*

*Attachment 2: SWANA White Paper – “75 Percent and Beyond: The State’s Role in the Development of New Solid Waste Management Infrastructure and Diversion Programs in California”*

*Carbon Copies: Matt Rodriguez – Secretary, California Environmental Protection Agency  
Members, California Air Resources Board  
Martha Guzman-Aceves – Deputy Legislative Secretary, Office of Governor Jerry Brown  
Caroll Mortensen – Director, CalRecycle  
Scott Smithline – Assistant Director for Policy Development, CalRecycle*

***Solid Waste Industry Group  
Solid Waste Industry for Climate Solutions***

***California State Association of Counties  
County Sanitation Districts of Los Angeles County  
Inland Empire Disposal Assn  
League of California Cities  
Los Angeles County Waste Management Assn  
Monterey Regional Waste Management District  
Orange County Waste and Recycling  
Republic Services, Inc.  
Rural Counties' Environmental Services JPA  
Solid Waste Association of North America, Calif. Chapters  
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Waste Connections  
Waste Management***

**July 12, 2013**

Mary Nichols, Chair  
California Air Resources Board  
1001 I Street - P.O. Box 2815  
Sacramento, CA 95812

Caroll Mortensen, Director  
CalRecycle  
1001 I Street - P.O. Box 4025  
Sacramento, CA 95812

Via Email:

**Subject: Comments - Waste Management Sector Plan for the 2013 Scoping Plan Update**

Dear Ms. Mortensen and Ms. Nichols:

Thank you for the opportunity to provide comments on the proposed Scoping Plan elements related to the Waste management sector that has been prepared by CalRecycle and the Air Resources Board (ARB). The Solid Waste Industry Group (SWIG) and the Solid Waste Industry for Climate Solutions (SWICS) –referred to herein as the Coalition – represent a cross section of local governments and private companies that have financed and built much of the solid waste management and diversion infrastructure in the state. Our goal is to work collaboratively with CalRecycle and ARB on the 2013 Scoping Plan Update (SPU) to achieve a practical, feasible,



and financially sustainable framework for greater waste diversion and additional greenhouse gas (GHG) reductions.

### **PROPOSED ELEMENTS WE SUPPORT**

The Coalition has reviewed the Overview of the waste management sector Plan, the Implementation Plan and the five sector specific White Papers that were the subject of the June 18, 2013 Workshop. We are strongly encouraged by the Waste management sector Plan because it recognizes that solid waste management is an integrated system that should be analyzed through life cycle approaches. In our review, we have found that we can support many of the actions proposed in the Implementation Plan. In fact, the proposed actions related to Permitting, Infrastructure, Offsets, Funding/Incentives, Markets/Quality of Products, and Public Education/Acceptance are not only reasonable, but they are absolutely necessary to ensure that the waste management sector can develop and expand the solid waste and recycling infrastructure necessary to achieve the goals of the waste management sector Plan.

To accomplish these goals will require a strong public-private partnership. The draft White Papers acknowledge that more than \$3 billion of public and private sector investment will be needed to fund the infrastructure and market enhancements necessary to increase recycling. This is particularly true given the White Papers reliance on diverting 7.5 million tons annually of landfilled organics to composting and anaerobic digestion to achieve the GHG reduction goals of the SPU and waste management sector Plan.

The Coalition signatories would like to be supportive partners in this endeavor to help insure that the goals are reasonable, scientifically supported, technically feasible and economically viable. As a general rule, the Coalition believes that any diversion targets should be phased in over time to allow markets for the finished products to develop and for local governments and private companies to secure the necessary capital to build new infrastructure and develop and implement the new programs (including adoption of state regulations, local ordinances, new or modified service contracts, etc.).

The Coalition wishes to make clear that it is not trying to avoid its obligations under AB 341 or AB 32. On the contrary, we have more than complied with AB 32 to date and we are committed to continuing to reduce GHG emissions from the sector.

### **AREAS OF CONCERN**

That said, the Coalition has serious concerns regarding the viability of the source reduction, recycling, and composting projections that are being used in the White Papers to support extremely large estimates of GHG reductions as proposed in the SPU for the waste management sector. The dramatic actions needed to achieve the reported GHG reductions in fact come shortly after the waste management sector has successfully implemented the early action methane emission control measure and when the waste management sector is making the significant capital investments necessary to implement mandatory commercial recycling.

The Coalition is also very concerned about language in the Sector Plan and White Papers that suggests bringing landfills or waste-to-energy into the cap-and-trade program. The Coalition is proposing to work with CalRecycle and ARB in a strong partnership to achieve the state's goals to minimize landfilling of waste that could otherwise be recycled, reused or utilized as a renewable energy source, all of which builds on the successes achieved under AB939.

As indicated above the Coalition has also worked with ARB to implement the most stringent landfill methane reduction measure in the world. This work has already achieved significant GHG reductions. However, ARB and CalRecycle should recognize that the cap-and-trade program under AB32 is in place to develop a market price for fossil carbon, as well as establish a trading system to reduce CO<sub>2</sub>e. Waste management is not a fit under this program because as shown in Attachment A, carbon flows from other sectors (e.g., energy sector as discussed below) into products that, following the product's useful life, are recycled into new products, utilized back into energy or become waste carbon.

Also, one of the requirements of participating in cap-and-trade is accuracy in GHG measurements. The interdependent relationship of carbon flowing in this system coupled with difficulties in accurate direct measurements (e.g., measuring emissions from landfills) further argue for not including waste management facilities in the cap-and-trade program. With a strong partnership and guided by tools such as life cycle analysis, further reductions in GHG emissions can be accomplished more effectively in a targeted fashion, while achieving the waste diversion and recycling goals of the state.

Challenges to achieving these goals will be significant. Throughout the White Papers, staff recognizes that there are daunting complexities and hurdles posed by inadequate organics management programs and infrastructure, insufficient recycling and recycling market infrastructure, chronically unpredictable recycling markets, permitting limitations, undefined capital financing capacity and slowly emerging recycling technologies.

We believe these difficulties are exacerbated by two foundational errors:

1. CalRecycle has looked past current law by (a) seemingly assuming that AB 341 established a 75% recycling mandate when, in fact, the law established a goal, and (b) classifying specific materials and activities (ADC, waste to energy, and waste tires) as disposal and "disposal-related" when they are, as a matter of law and accepted practice, recycling or "recycling-related." The former confers an aura of inevitability on proposed reduction targets that is not conferred by AB 341 itself. The latter unjustifiably inflates the volume of materials that must be recycled, composted or source reduced in order to meet the 75% goal to an additional 22.8 million tons of currently disposed material.
2. CARB has used CalRecycle's inflated recycling target (22.8 million tons) to justify proposing dramatic increases (22 million tons CO<sub>2</sub>e, almost 300% above the original Scoping Plan) in GHG emission reductions from the waste management sector.

## **REVISIONS NEEDED TO THE WASTE MANGEMENT SECTOR PLAN**

Because of the above-mentioned complexities and hurdles, the Coalition believes that it is imperative that the ARB and CalRecycle staffs revise the waste management sector Plan as follows:

- ***AB 341 75% Goal.*** AB 341 is clearly the most important single element of the waste management sector plan for reducing GHG emissions. However, before effectively laying out what must be done to achieve this goal, a clear baseline must be established. ARB and CalRecycle are relying on an incorrect interpretation of AB 341 to determine the assignment of responsibility for source reduction, recycling and composting that is to be used to approach the 75% goal. In addition, the Overview of the waste management sector Plan includes the following statement: “AB 341 established a clear mandate to achieve a 75% recycling goal (and associated GHG reductions) by 2020.” This statement is simply inaccurate. When AB 341 was legislated, everyone agreed that this target was a goal, not a mandate. In fact, AB 341 enacted Section 41780.01 of the Public Resources Code, which states that “The Legislature hereby declares that it is the **policy goal** of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter.” The legislation intentionally avoided the term mandate, and indeed, included language specifically stating that the 75% goal was not to be interpreted as an enforceable diversion or recycling mandate on local governments.
- ***Landfill Methane Emissions.*** The Waste Sector Landfill White Paper overestimates the impact of landfill methane emissions to conclude that Landfills are a “significant” source of GHG emissions without providing any citations to support this statement. The Landfill White Paper acknowledges that landfill emissions are “difficult to estimate and are subject to substantial uncertainty”. The early action measure adopted by ARB must be fully evaluated and a reasonable and reliable estimate of GHG impacts from landfills should be derived before imposing additional restrictions on landfills.
- ***Solid Waste and Recycling Sector GHG Reduction Potential.*** The Coalition believes that the White Papers unreasonably overestimate the GHG reduction potential from the Solid Waste and Recycling Sector to be 22 MMCO<sub>2</sub>e of reductions by 2020.
- ***Fuels and Energy from Post-Recycled Waste Materials.*** CalRecycle and ARB staffs have not given adequate consideration to the role that fuels and energy from post-recycled waste materials can play to help achieve GHG reductions and to achieve AB 341 Goals.
- ***Proposed Course of Action – Moving Forward.*** The basis for achieving new Waste Sector reductions for 2020 in the SPU should be implementation of a sensible and rigorous commercial organics recycling program, and any additional actions should hinge upon evaluation of the effectiveness of the early action landfill methane emission reduction measure, full implementation of mandatory commercial recycling, and the additional implementation of a commercial organics recycling program.

The following comments expand on each of these points:

### ***AB 341 75% Goal***

Because of CalRecycle’s proposed interpretation of the 75% goal in AB 341, our Coalition believes that a much higher bar is being set for new source reduction, recycling and composting

programs and infrastructure than can reasonably be achieved through available private sector and public sector capital. Indeed, under our calculations proposed in Attachment B, California would still be faced with a difficult challenge in meeting a 75% source reduction, recycling and composting goal. However, under our Coalition proposal, instead of having to find a home for 22.8 million tons of newly recycled materials, California will still be faced with having to find a home for about 16.2 million tons of newly recycled materials by 2020. Of this total 16.2 million tons, 6.5 million tons would require new recycling capacity simply to maintain California's existing diversion rate of about 66% -- at a capital cost estimated to be \$0.65 billion (\$100/ton-year). About 9.7 million tons would be "new" recycling beyond business-as-usual, which will require almost \$1 billion of additional new investment dollars (\$100/ton-year). This is still a significant, albeit somewhat more reasonable approach than that proposed by the SPU. The Coalition strongly requests that ARB and CalRecycle consider the proposed revised approach outlined in Attachment B.

This approach is consistent with the framework recently proposed by the Legislative Task Force for SWANA California Chapters (SWANA) in their 2013 White Paper, "75 Percent and Beyond: The State's Role in the Development of New Solid Waste Management Infrastructure and Diversion Programs in California." The SWANA White Paper (Attachment C) offers the following key recommendations:

1. Allow Full Implementation of Mandatory Commercial Recycling (MCR) Regulations to Achieve 69% Diversion. According to CalRecycle's own estimates, this measure could potentially increase statewide diversion to nearly 69%.
2. Facilitate the Development of Diversion Infrastructure for Food Waste to Achieve 75% Diversion. The Coalition supports SWANA's recommended strategy to have different implementation programs for urban and rural areas of California.
3. Expand Product Stewardship and Extended Producer Responsibility (EPA) Programs to Reduce Waste. The primary focus of these programs should be to focus on toxic and hard to handle materials in the waste stream.
4. Utilize lifecycle analysis (LCA) to select sustainable technologies and options that will achieve greater diversion. Such a LCA must be conducted objectively with the best information in the published literature, and consistent with national and international protocols.
5. Support continued operation of environmentally protective, well-designed landfills to manage residuals and post-MRF wastes, including diversion and responsible beneficial use programs at landfills.

### ***Landfill Methane Emissions, and Solid Waste and Recycling Greenhouse Gas Emissions***

The waste management sector has had more success in reducing overall GHG emissions over the past 30 years than any other sector (See Attachment D describing the accomplishments of our sector). When the previous Scoping Plan was prepared, total GHG emissions charged to the solid waste and recycling sector was approximately 6 MMTCO<sub>2e</sub> per year --with a smaller portion of this amount (approximately 1 MMTCO<sub>2e</sub>) attributable to estimated landfill emissions based



upon an assumed collection efficiency of 75% and overall estimated control efficiency of 77.5% using US EPA criteria and assumptions. This represented less than 2% of the total GHG emissions in California in 2010 – a rather small amount (originally ARB estimated about 1% and has not provided supporting data to substantiate the newer 2% estimate). Other than landfill emissions, the next largest source of GHG emissions in the solid waste sector is from our collection and transport vehicles. However, reductions from this source are not allocated to our sector. Rather, the ARB is addressing these emissions separately through the incorporation of vehicle fuels under the Cap and Trade program beginning in 2015.

The first scoping plan evaluation resulted in the development of an early action control measure to further limit landfill GHG emissions through a lowering of allowable landfill surface methane concentrations. The ARB estimated this would result in approximately an additional 25% reduction in landfill GHG emissions raising the overall estimated methane control efficiency to about 83%. Of the approximately 6 MMTCO<sub>2</sub>e of landfill emissions estimated from this sector in 2010, we believe the landfill early action control measure has led to reduction of emissions to about 4.5 MMTCO<sub>2</sub>e.

The waste management sector has fully implemented these new standards and, as far as we are aware, is maintaining an exemplary compliance record. Contrary to statements articulated in the draft Scoping Plan documents; we have every reason to believe that emissions from landfills are being further reduced rather than increasing. As an example, we believe ARB has not fully accounted for the recession period where for a number of years waste generation and waste disposal was reduced significantly. ARB needs to fully reassess these estimates utilizing the increased landfill gas capture that is being achieved because of the early action measure. Attachment E (SWICS GHG White Paper) to this letter further describes the state of the art in understanding GHG emissions from the waste management sector with a focus on landfill methane emissions and their control.

We ask that CalRecycle and ARB staffs recognize in their landfill emissions and GHG reduction estimates the successful efforts made by our sector over the past 30 years and the compliance with the early action measure adopted by ARB to further limit landfill methane emissions.

#### ***Further GHG Reductions Attributed to the Solid Waste and Recycling Sector***

The SPU, based upon full implementation of the AB 341 as defined thus far by CalRecycle, has targeted 22 MMTCO<sub>2</sub>e from the waste management sector by 2020. The Coalition has two issues with this target. First, ARB has indicated that they are on track to meet the AB 32 2020 goals, so the new estimate of a 22 MMTCO<sub>2</sub>e reduction is not needed for the 2020 goal, but is really part of the 2050 long-range goal. So, it is unclear to us why the SPU includes such a push to treat the AB341 goal as a “mandate.” Second, as far as the Coalition is concerned, the math simply does not add up. To this point, we have not received any detailed explanation of how this number was derived from ARB or CalRecycle staffs. Our limited understanding has led us to believe that CalRecycle is somehow using an overall life-cycle assessment (LCA) of materials management that are associated with solid waste and recycling as exemplified by the US EPA chart in Attachment A.

If this is the case, we believe that CalRecycle and ARB staffs are trying to assign GHG reductions that are not under the control of our sector. As articulated in the attached ICF report



prepared for Waste Management in 2008, the GHG reductions associated with the use of recyclable materials cannot be claimed by the solid waste and recycling sector (Attachment F). Rather, most of these emission reductions are due to energy savings of the manufacturing sector that uses recycled materials rather than virgin raw materials as part of the manufacturing process.

Only the bottom portion of Attachment A (US EPA Chart) depicts GHG emission sources and sinks directly associated with solid waste and recycling (Landfills, WTE, and Composting). Emission sources and sinks, due to transportation fuels, are handled by ARB under the Fuels and Transportation Sector. The upper half of Attachment A shows GHG emission reductions that are more closely tied to the manufacturing sector – not the Solid Waste and Recycling Sector. Assigning these “upper” emission changes to the Solid Waste and Recycling Sectors will result in double counting.

As can be seen from the attached ICF White Paper (Attachment F), recycling LCA GHG reductions are very difficult to quantify and assign to the solid waste and recycling sector for the following reasons:

- **Determining Additionality.** Meeting additionality requirements can be a difficult hurdle for existing recycling mills, recycled steel or aluminum plants, if they have been operational prior to the existence of GHG accounting protocols. Similar problems exist for recycling conducted pursuant to state or local mandates.
- **Measurement.** It is very difficult to apportion GHG reduction among all the parties associated with recycling: from generators, collectors and processors to final remanufacturers. This is further complicated if any of these activities take place outside of California.
- **Double Counting.** Because California is capping the use of electricity and assigning that to the electricity sector, any reduction in GHG emissions from reduced energy use due to recycling should be credited to the electricity sector, not the solid waste and recycling sector.

Under existing international protocols, energy reductions achieved by the manufacturing sector by the use of recycled materials are credited to that sector. Our Coalition is very concerned that the approach that ARB and CalRecycle is taking to somehow assign these credits to our sector will result in double counting and, as a result, cannot and will not result in the level of GHG reductions projected.

### ***Fuels and Energy from the Solid Waste and Recycling Sector***

As can be seen from Attachment A and the US EPA document from which it is excerpted (<http://www.epa.gov/climatechange/wycd/waste/downloads/fullreport.pdf>) and discussed in the last section, significant GHG reductions can be achieved from energy and fuels produced from post-recycled waste materials that result in reduced use of fossil fuels. Unfortunately, CalRecycle’s draft AB 341 Report (dated May 2012) has proposed to disallow recycling credit for existing energy that is already being recovered as part of AB 939 using existing transformation facilities. Further, CalRecycle has not provided a pathway for the expanded use of post-recycled waste materials for energy and fuel use to meet the 75% “Source reduction, recycling, and composting” goals of AB 341. The Coalition strongly requests and suggests that

ARB and CalRecycle consider the expanded use of post-recycled waste materials to produce energy and fuels as a means to achieve the 75% source reduction, recycling and composting goal.

***Proposed Course of Action – Moving Forward***

The Coalition respectfully requests that ARB and CalRecycle rethink the approach contained in the Waste Sector Management Plan, including implementation of AB 341, and partner with us to develop a practical and sustainable pathway towards meeting the goals of AB 32 and AB 341.

We recommend the following:

- **CalRecycle’s 75% Plan Needs to be Consistent with Current State Law** -CalRecycle should revise their currently proposed AB 341 75% math. Instead of the proposed approach, state the goal within a framework similar to, and consistent with, AB 939 and current law as follows:
  - Under existing law, the use of ADC and other beneficially used waste-derived materials is a form of recycling (PRC 41781.3) and should not be classified as “disposal-related.”
  - Under existing law, 10% of a jurisdiction’s 50% diversion requirement can be met by using waste materials to generate energy (PRC 41783). WTE is thus a form of diversion, and is more closely related to recycling than disposal.
  - Waste tires used for energy recovery is also a form of diversion, and thus is more closely related to recycling than disposal.
- **Support Legislation to Implement Sensible and Rigorous Commercial Organics Recycling** – This Coalition supports legislation aimed at increasing large generator organic waste diversion and recycling, including meat waste – primarily in large metropolitan areas that have a practical density of large organic waste generators – with a modified program for rural areas of the state. Further, we believe that a commercial organics program should be implemented at a local level consistent with the existing mandatory commercial recycling program and should include program flexibility so that jurisdictions can tailor the program to meet local needs and conditions.
- **Incentivize and Encourage Reduced Reliance on Green Material ADC** - As new organic waste management infrastructure is developed, green material and other compostable organic wastes should be increasingly diverted to composting, anaerobic digestion, and other forms of energy recovery and use. This Coalition supports the development and use of alternative non-green material forms of ADC such as MRF fines.
- **Do not assign anticipated GHG reductions associated with the transportation and manufacturing sectors to the solid waste and recycling sector** - The end use of recycled materials or source-reduced materials should be assigned to the manufacturing sector in which these activities take place.

- **Create pathways for energy production from post-recycled waste materials** – New technologies can contribute to achieving the 75% goal by 2020 in accordance with strict California environmental standards.
- **ARB AB 32 authority should not be used to implement new waste sector programs** -The Scoping Plan Update should instead reflect our mutual understanding of the above goals.

The Coalition appreciates bringing these concerns and recommendations to your attention. We are very interested in scheduling a meeting in the near future to discuss these concerns and our recommendations. Please feel free to contact any one of the undersigned if you have any questions regarding this letter and attachments. A representative of our Coalition will be contacting you in the near future to schedule a meeting to discuss this matter.

Sincerely,

Karen Keene, Senior Legislative Representative  
California State Association of Counties

Frank Caponi, Division Engineer/Head, Air Quality Engineering  
County Sanitation Districts of Los Angeles County

Kelly Astor, Legislative Advocate  
Inland Empire Disposal Assn.  
Solid Waste Assn of Orange County  
Los Angeles County Waste Management Assn.

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Waste Management

**2013 WHITE PAPER  
LEGISLATIVE TASK FORCE FOR SWANA CALIFORNIA CHAPTERS**

**75 Percent Diversion and Beyond:  
The State's Role in Development of New Solid Waste  
Management Infrastructure and Diversion Programs in California**

California has led the nation in creating integrated solid waste management programs that place a priority on diverting waste materials away from landfills. In 2011, California diverted 65 percent of the 86 million tons of municipal solid waste generated statewide, far exceeding the requirements of AB 939 (Sher). This was possible, in large part, because local governments and solid waste management companies across the state have made significant financial investments over the years to develop and implement waste diversion programs as well as constructing and operating recycling facilities.

With the passage of AB 341 (Chesbro) in 2011, a new state goal was established where, by the year 2020, 75 percent of the solid waste generated in the state would be managed solely by source reduction, recycling, and composting. CalRecycle is currently developing a plan for achieving this new statewide goal, herein referred to as the "75% Plan," that will be submitted to the Legislature by January 1, 2014.

In March 2010, the Legislative Task Force (LTF) for the California Chapters of the Solid Waste Association of North America (SWANA) developed a white paper outlining the fundamental strategies and essential tools necessary for achieving greater waste diversion in California. This white paper addresses the new paradigm contemplated by CalRecycle to implement the provisions in AB 341 related to a statewide 75% recycling goal for managing solid waste.

**Proposed Framework for Achieving Higher Diversion**

The LTF asks that CalRecycle support local governments across the state in their efforts to add to the diversion infrastructure and programs developed thus far, rather than change to a totally new solid waste management paradigm.

CalRecycle is proposing sweeping changes on how solid waste diversion is measured in its plan to achieve a 75 percent "recycling" goal. "Recycling," in this case, is comprised of source reduction, recycling, and composting. In the 75% Plan, CalRecycle proposes to establish a new metric for measuring progress towards this goal, whereby all landfill diversion programs including alternative daily cover (ADC), alternative intermediate cover (AIC), and transformation (waste-to-energy) would be considered disposal. Additionally, CalRecycle proposes to change the time period in which the per capita disposal baseline is calculated, arbitrarily modifying the baseline from 12.6 to 10.7 pounds/resident/day. This would force jurisdictions to divert more than 75% because their starting point (baseline) is artificially lowered.

We believe that this new construct, if enacted through legislation and implemented by regulation, would waste investments already made in existing diversion programs, force local jurisdictions to a state-preferred infrastructure that usurps local control, and prevent



implementation of environmentally and fiscally sustainable pathways towards greater diversion. Furthermore, the new diversion infrastructure required for this plan cannot be built by 2020 (only 8 years from now) given the extensive permitting process, regional siting difficulties, lack of markets for end products, and the severe municipal budget constraints across the state. Lastly, while CalRecycle views this new construct as a measurement system separate from AB 939, we believe that if enacted and implemented, it will become the new mandated metric and it will replace the system originally enacted by AB 939 and SB 1016 for jurisdictions.

CalRecycle’s proposed plan should move from a prescriptive to a performance-based plan. Rather than mandating technologies and disregarding others, the 75% plan should allow local jurisdiction to select technologies and programs that are best suited and most sustainable for their communities. For example, composting may work well in many rural areas but may not be suitable for most urban areas. By streamlining goals, legislation, and regulations to allow local jurisdictions to implement innovative and sustainable programs, the goals established by AB341 can be achieved with fewer unfunded mandates on local jurisdictions.

The LTF proposes a phased approach towards greater diversion, which is performance-based rather than state prescribed. The first statewide goal should be 75% diversion, as currently defined in statute, and based on the existing per capita baseline. Once 75% diversion is achieved, additional forms of diversion can be explored in a deliberate and measured manner in collaboration with local jurisdictions and private industry. This phased approach has the advantage of applying the successes and lessons of the first phase to next, and allowing the infrastructure and programs from the first phase to gain their financial footing. Additionally, a phased approach would adhere to the Legislature’s intent (indicated in AB 341) of sustaining the existing diversion infrastructure and preserving the broad discretion conferred to local agencies regarding the management of municipal solid waste. The LTF’s proposed strategies for achieving 75% diversion are summarized in the following table and discussed below:

Strategy Proposed by SWANA LTF	Estimated Statewide Diversion After Implementation
<b>ACHIEVING 75% DIVERSION (Currently 65%)</b>	
<b>Strategy 1:</b> Allow Full Implementation of Mandatory Commercial Recycling Regulations	69%
<b>Strategy 2:</b> Facilitate the Development of Diversion Infrastructure for Food Waste	75 %
<b>Strategy 3:</b> Expand Product Stewardship and Extended Producer Responsibility Programs	Source reduction and markets for recyclables
<b>75% DIVERSION AND BEYOND</b>	
<b>Strategy 4:</b> Utilize Lifecycle Analysis to Select Sustainable Diversion Options and Technologies	75% and beyond
<b>Strategy 5:</b> Support Continued Operations of Environmentally-Protective, Well-Designed Landfills and Diversion Programs at Landfills	Manages residuals and recycles waste materials

## STRATEGIES FOR ACHIEVING 75% DIVERSION

### Strategy 1: Allow Full Implementation of Mandatory Commercial Recycling (MCR) Regulations to Achieve 69% Diversion

**Background.** The MCR regulations adopted by CalRecycle on January 17, 2012, are intended to divert 2 to 3.5 million tons of the estimated 27.6 million tons of commercial waste disposed of every year in order to achieve a reduction in greenhouse (GHG) emissions of 5 million metric tons of carbon dioxide (CO<sub>2</sub>) equivalents. The MCR regulations took effect on July 1, 2012. Businesses, public agencies, and multifamily dwelling of five units or more are now required to source separate materials from solid waste or subscribe to a recycling service.

**Implementation.** Evaluate the effects of the full implementation of the MCR regulations prior to adding additional programmatic burdens. According to CalRecycle's estimates, this measure potentially could increase statewide diversion to nearly 69% based on the 86 million tons of waste generated in 2011.

### Strategy 2: Facilitate the Development of Diversion Infrastructure for Food Waste to Achieve 75% Diversion

**Background.** According to CalRecycle's Organics Roadmap IV (2011), food waste is the largest fraction of compostable materials disposed of statewide, comprising of 5 million tons annually. In diverting this amount of food waste to technologies such as anaerobic digestion and composting, statewide diversion could reach 75 percent when coupled with MCR.

Local discretion, however, needs to be exercised in order for the technologies and facilities that are best suited, most cost-effective, and sustainable for each region of the state to be selected. For example, the amount of food waste and its share of waste stream vary throughout the state. Additionally, the land use and air quality permitting constraints that exist in highly urbanized areas make it very unlikely that new composting infrastructure will be developed in these areas in foreseeable future. Consequently, food waste management needs to be tailored to each region of the state. If performance standards or best management practices are established for food waste management programs, they should not restrict the local jurisdiction's ability to select a program or technology.

Finally, products derived from food waste will need markets to make this new infrastructure financially and environmentally sustainable. Some regions of the state have vast agricultural lands where compost can be used. However, in highly urbanized areas, this is not the case. CalRecycle can play an important role in creating markets for these new products and in reducing regulatory constraints so that innovative programs and technologies can be economically viable.

**Implementation in Urban Areas.** In highly urbanized areas, anaerobic digestion may be the best technology for managing food waste. This could be achieved in separate anaerobic digesters dedicated to food waste or comingled with sewage sludge in wastewater treatment plant anaerobic digesters. In most urban areas of the state there are wastewater treatment plants with anaerobic digesters that process sewage sludge, an essential step in producing

biosolids. Biosolids are beneficially used for soil amendment, whether in compost or in direct land application. CalRecycle should:

- Work with sanitation agencies to remove legislative and regulatory impediments to use of excess anaerobic digestion capacity for processing food waste. In utilizing existing anaerobic digestion facilities, it avoids the difficult and costly permitting process involved in siting new facilities, particularly in urban areas. CalRecycle could fund pilot studies to determine the optimum digestion or co-digestion conditions for food waste, and what the cost per ton would be to process food waste.
- Fund pilot programs where jurisdictions have identified the commercial sources of food wastes willing to participate, developed agreements with hauling companies for food waste collection, and have partnered with sanitation agencies for the processing of the food waste.

**Implementation in Rural Areas.** Composting facilities are more likely to be sited in rural areas, which could be in remote parts of urban or rural counties. Agricultural lands are a significant potential end market for composted material. Transportation of food wastes is an added cost that needs to be considered. CalRecycle should work with existing composting facilities on how food waste could be added to their feedstock, and continue to remove regulatory barriers for siting and permitting facilities. CalRecycle should also work with agricultural trade organizations to expand compostable organics programs in agricultural lands. In certain rural areas, anaerobic digestion and other technologies may be feasible and should be explored.

**Implementation of Market Development.** The State needs to support the development of robust markets for waste-derived products in order for food waste diversion to be financially sustainable. CalRecycle should assist in this endeavor by:

- Promoting development of local markets
- Coordinating with various state agencies to streamline overlapping or contradictory regulations
- Working to develop specifications for compost material used by state agencies, such as Caltrans, to include a minimum percentage of food waste or green waste in the compost mix
- Establishing a program where diversion credits could be given to local jurisdictions that use compost derived from food waste or green waste

### **Strategy 3: Expand Product Stewardship and Extended Producer Responsibility (EPR) Programs to Reduce Wastes**

**Background.** Preventing waste from ending up in a landfill should start with the initial product itself and continue with those involved in the lifecycle of that product. Local government's public outreach can facilitate reducing, reusing and recycling to a certain extent, but ultimately products need to be recyclable to have a complete reuse cycle.

Producers should be responsible for designing, manufacturing, and packaging a sustainable recyclable product. Distributors and retailers should also be involved in establishing and managing end-of-life systems for difficult-to-recycle products as an integral part of their marketing and customer service. Product stewardship can be achieved in California but it requires a new approach, such as legislation that incentivizes manufacturers to make an investment in redesigning products that promote environmental sustainability while establishing a convenient way for consumers to return used or unwanted products to the manufacturer. Without legislative incentives to drive this shift in responsibility, many products will continue to be sent to a waste disposal facility at the end of their useful lives, placing the task of their final handling, diversion or disposal on local government, which is not always the most practical and cost effective approach.

**Implementation.** Recent legislative efforts to establish EPR programs for paints, carpets, batteries, and mattresses, are examples of the types of programs the LTF has supported in concept and hopes will continue. Thoughtful and collaborative legislation will be necessary so that unfunded burdens are not inadvertently placed on local governments. It is also important to carefully craft the programs such that the funds earmarked for recycling or EPR programs won't be diverted to other purposes by the Legislature.

Consideration should be given to establishing recognition-based EPR programs. For example, it is our understanding that the wine industry has historically opposed a surcharge to wine bottles to fund a statewide buyback recycling program. The state could work collaboratively with the wine industry to develop an alternative program that incentivizes consumers to return the empty bottles for processing and reuse, such as a discount on new purchases in exchange for returning used empty bottles or providing wine club members with prepaid postage so that they can return to the empty wine bottles in the same shipping box. The State could recognize wine industry participants with "green awards" and publicity.

## **BEYOND 75% DIVERSION**

### **Strategy 4: Utilize Lifecycle Analysis to Select Sustainable Technologies and Options That Will Achieve Greater Diversion**

**Background.** Lifecycle analysis is a technique used to assess the environmental and cost impacts associated with all the stages of a product's life from cradle to grave. It includes raw material extraction, materials processing, manufacture, distribution, use, repair and maintenance, recovery, recycling, and disposal. A robust lifecycle analysis can also be used to select new technologies that manage, recycle, or convert wastes based on understanding their net environmental benefits and costs.

To achieve a statewide diversion greater than 75%, alternatives, including emerging technologies that convert post-material recovery facility (MRF) wastes or source separated waste residuals into usable products, renewable energy, or non-fossil fuels, need to be carefully evaluated to determine their sustainability. If they are determined to be viable, given existing conditions, then legislation and regulation need to allow their implementation. Otherwise, these end-of-the-line wastes will be landfilled and the opportunity for environmentally-beneficial uses will be lost. Local jurisdictions should also be allowed to select and implement new technologies at any time, irrespective statewide diversion level.

**Implementation.** The LTF asks that CalRecycle:

- Finalize the June 2009 Draft Report titled “Life Cycle Assessment and Economic Analysis of Organic Waste Management and Greenhouse Gas Reduction Options” and use it as a starting point for analyzing new technologies and options for managing wastes.
- Provide diversion credits to technologies or facilities that produce renewable energy or fuels from solid waste.
- Secure a Cap-and-Trade exemption for diversion-related technologies and facilities producing renewable energy or fuels
- Work with the Legislature to remove the zero emissions criteria for renewable energy technologies and merely make them subject to the same air quality regulations as all other technologies, including landfills.

**Strategy 5: Support Continued Operations of Environmentally-Protective, Well-Designed Landfills to Manage Residuals and Post-MRF Wastes, and Diversion Programs at Landfills**

Although the state’s priority for waste management is diversion of wastes from landfills, some fraction of waste will still require disposal. Therefore, it is essential that environmentally protective, cost effective landfills be included in the alternatives for waste management. Because of the desire to divert recoverable materials from landfills, landfills have often been mischaracterized as being unsafe and even unnecessary. However, until sufficient infrastructure, markets, funds, and public and political support are in place to divert all wastes, landfills will continue to serve a critical role in managing solid waste in California. Today’s landfills are integrated facilities that are not just long-term repositories for solid waste that cannot be recycled. They are designed to protect the environment and public health, serve as a recycling alternative for beneficial reuse of waste materials, and allow production of significant renewable energy from methane capture. Adequate landfill capacity must continue to be a key component of any integrated waste management program.

**Implementation.** CalRecycle should:

- Support critical diversion programs that occur at landfills, such as the beneficial reuse of green waste, asphalt, and other materials, which reduce the need for virgin materials and soils. Many jurisdictions have invested in these diversion programs and rely on them for complying with AB 939 goals.
- Focus on market development for C&D wastes. As the economy recovers, more markets will be required.

**Closing Remarks**

The diversion, recycling and disposal infrastructure in place today were selected and financed by local jurisdictions. The SWANA LTF is concerned that this infrastructure will be supplanted by a state-imposed diversion system which may not be environmentally and



economically sustainable, and may have unintended long-term consequences should it fail (e.g., illegal disposal, wasted financial investments by local jurisdictions on unsustainable or inappropriate mandated programs). This concern needs to be part of the decision-making process in the development of new infrastructure and programs. The strategies proposed herein by the SWANA LTF expands upon the existing infrastructure and programs rather than take away or eliminate the diversion tools needed by local jurisdictions to achieve greater diversion.

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