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NATIONAL RECYCLING COALITION INC.

July 12, 2013

Teri Wion
California Department of Resources Recycling and Recovery
P.O. Box 4025, MS-13A
Sacramento, CA 95812-4025
Via email to Teri.Wion@CalRecycle.ca.gov

Regarding: Comments on Draft Waste Sector Management Plan

Dear Ms. Wion:

CRRA, with input from the Recyclers Global Warming Technical Council and the California Organics Recycling Technical Council provides these Draft Waste Sector Management Plan update comments and recommendations to CalRecycle and the California Air Resources Board. Our recommended Scoping Plan priorities for ARB and CalRecycle are intended to augment the progress made under AB 341 and AB 32 to date, and to set the direction for the next 5 years:

- Focus on waste prevention and reduction
- Ban compostable organics from landfill disposal
- Develop in-state markets
- Incentivize recycling

The CRRA is pleased that recycling and composting greenhouse gas reduction benefits were recognized in the initial Scoping Plan and are included as Investment Plan activities. This five-year update is an opportunity to merge California's AB 32 climate actions with increased AB 341 recycling. CRRA held two workshops on 75% recycling strategies in February 2013 (Oakland and Diamond Bar), and input from those workshops is instrumental in our comments.

- Reduction and prevention. Waste reduction and prevention need to be included in the Scoping Plan. The Oregon Department of Energy Plan[1] shows cost effectiveness (marginal abatement cost curves) for 212 greenhouse gas mitigation measures under three different scenarios. Waste prevention is most cost-effective of the 13 waste

[1] www.oregon.gov/energy/gblwrm/pages/ghg-macc.aspx

programs analyzed; and is seventh most cost-effective of all programs. Waste prevention shows far more cumulative GHG reduction than the other highly cost-effective programs; and the highest net present value of all measures. The programs analyzed are food waste and packaging waste prevention.

If CalRecycle undertakes a statewide food waste reduction effort, based on existing US EPA[2] and UK[3] models, the reduced volume also would ameliorate composting and anaerobic digestion facility market development issues by requiring less compostable organics facility capacity. Landscaping could better be designed to reduce water use and organic waste generation.

Packaging is another candidate for waste reduction and prevention. StopWaste.org[4] is demonstrating effective transportation packaging approaches that can be spread statewide. Much single-use product packaging can be reduced through focused community based social marketing and creative programs.

Analyzing GHG product lifecycle emissions should become standard practice in CalRecycle's policy analyses. High GHG materials and products need to identified, low impact alternatives proposed, and resources focused on reducing product and materials lifecycle emissions. CalRecycle should begin consumption based GHG analyses, analyzing materials and products through their entire lifecycle including the use phase. End-of-life analyses are useful in diminishing impacts, but full lifecycle impacts require a broader consumption view of supply chains and use that will lead to creative and effective GHG reduction. Repair and reuse easily are overlooked by end-of-life analyses, but offer highly cost-effective GHG reduction under consumption analyses.

- Compostable Organics. The Air Resources Board should phase out compostable organics materials from landfill disposal beginning in 2017, and ban all landfill disposals of organic materials by 2020. That ban must be supported with a comprehensive plan to expand existing composting facilities capacity, permit new facilities, add statewide anaerobic digestion capacity, increase commercial food

[2] http://www.epa.gov/smm/foodrecovery/
[3] http://www.lovefoodhatewaste.com/
[4] http://www.stopwaste.org/home/index.asp?page=1194

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scrap collection and assure markets for resulting soil amendments and fuels (which have additional GHG and adaptation benefits). Adopting the ban now will provide a signal to composting and anaerobic digestion proponents that the materials will be available to support their operations.

As CalRecycle's Organics background materials indicates "Diverting organic waste from landfilling and using it as feedstock in composting and anaerobic digestion processes will achieve GHG reductions and will be critical in achieving our waste reduction goals. The GHG emission reductions from these activities would occur due to avoided landfill emissions, displacement of fossil fuel with biogas, and reduction in synthetic fertilizer and water usage. "

Market development should be supported by Incentive Plan investments, including low-interest loans, grants and incentive payments. The loan portfolio will return the State's investments for further GHG reduction efforts. Investments now can close the gap between low landfill costs and modern composting or anaerobic digestion facilities operations.

ARB needs to adopt protocols in 2014 for composting and anaerobic digestion activities to be a source of GHG and criteria emission offsets. Offsets could provide funding to build and expand infrastructure, reduce the cost differential between these activities and landfilling, or provide emission offsets for new facilities

Methane emissions typically are modeled on 21 to 25 year horizons to conform to carbon dioxide atmospheric life . However methane's atmospheric half-life is 12.2 years, so removing methane today will yield immediate pay-back. The City of Boulder's recent community inventory calculated methane emissions over its actual life, and landfill emissions appear 300% higher than traditional calculations. The IPCC, US EPA and US State Department all recognize the short-term benefits from reducing methane emissions. CalRecycle and ARB should lead efforts to curtail methane generation now, and measure the actual resulting reduction impacts.

- <u>Materials</u>
  CalRecycle's Net Zero sector emissions goal is laudable, and we congratulate you on this initiative. We suggest also including goals to achieve at least 75% GHG reduction by individual materials and products by 2020. Products like carpet and dimensional lumber embody high GHG lifecycle emissions but lack effective recycling systems;

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and so provide limited GHG reduction. Adding consumption analyses will help to focus on high GHG materials that otherwise may be overlooked in mass sector analyses. US EPA demonstrated that at least 42% of US GHG emissions are embodied in products and food. The remaining product and material use and upstream consumption emissions should not be ignored while we work to achieve CalRecycle's Net Zero.

Building a new California economy using recycled materials should be the cornerstone of CalRecycle's Scoping Plan efforts. Market development is an underutilized tool that can further reduce material and product GHG emissions by powering industry through California's increasingly renewable energy supplies. We can focus on products that not only include recycled content, but also incorporate 21st century industrial processes to reduce toxicity and waste and expand process energy efficiency. We can create markets for durable, repairable, upgradeable products satisfying California's environmental goals and new consumer behavior.

- Incentivize recycling

  "Zero Waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them."[5]

  "CalRecycle protects the environment and preserves resources by empowering Californians to reduce, reuse, and recycle."[6]

  Waste prevention and recycling will realize far greater benefits than any amount of landfilling or waste to energy. CalRecycle should focus on creating waste prevention and recycling incentives, moving beyond 75% in 2020 to near zero by 2025. The recent report "What is the best disposal option for the "Leftovers" on the way to Zero Waste?"[7] underscores broad environmental benefits from using material recovery/biological treatment techniques rather than landfilling or burning materials.

  Preventing landfill methane generation is far more beneficial than trying to capture fugitive emissions. Avoiding thermal energy emissions is altogether preferable to regulating those emissions. Thermal energy facilities and landfills should not receive

[5] http://zwia.org/standards/zw-definition/
[6] CalRecycle's Purpose http://www.calrecycle.ca.gov/AboutUs/Mission.htm
[7] http://ecocycle.org/specialreports/leftovers/background

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special Cap and Trade dispensation, but should bear their full environmental impact costs. Thermal energy processes should not be part of a renewable energy portfolio.

Incentivize recycling, not wasting.

Sincerely,

Tracie Onstad Bills
President

CRRA, founded in 1974, is California's statewide recycling association. It is the oldest and one of the largest non-profit recycling organizations in the United States. CRRA is dedicated to achieving environmental sustainability in and beyond California through Zero Waste strategies including product stewardship, waste prevention, reuse, recycling and composting. CRRA advances local, regional and state wide waste reduction efforts which result in critical environmental and climate protection outcomes. CRRA's members represent all aspects of California's reduce-reuse-recycle-compost economy. Our members work for cities, counties and municipal districts, as well as hauling companies, material processors, non-profit organizations, state agencies, and allied professionals.

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