

## Infrastructure Expansion, Funding Considerations, and Non-monetary Incentives

Summary - Barriers	Summary - Solutions
<ul style="list-style-type: none"> <li>❑ Cheaper alternatives to composting – ADC and landfilling</li> <li>❑ Lack of full cost accounting/ undervaluing benefits of compost</li> <li>❑ Lack of financing – no funding for new technologies</li> </ul>	<ul style="list-style-type: none"> <li>❑ Statewide landfill surcharge on disposal to fund infrastructure development for compost and anaerobic digestion</li> <li>❑ Carbon credits, tradable diversion credits</li> <li>❑ Tax credits, other financial incentives</li> <li>❑ Full cost accounting</li> </ul>
<ul style="list-style-type: none"> <li>❑ Regulatory issues – cost to compost facilities to comply with air/water regs;</li> <li>❑ Permitting for food composting</li> <li>❑ Lack of requirement for local governments to plan for processing capacity</li> <li>❑ Lack of coordination between various regulatory agencies – “regulation in isolation”</li> <li>❑ Lack of data on compost benefits</li> </ul>	<ul style="list-style-type: none"> <li>❑ Better coordination among regulatory agencies and balancing of environmental impacts</li> <li>❑ Better understanding of benefits of organics management in the “big picture” and organic products benefits</li> <li>❑ Require Siting Element to include processing capacity information</li> <li>❑ Require statewide processing capacity goal</li> <li>❑ Quantify organic product benefits including avoided costs of transportation, lost landfill capacity, increased emissions, etc.</li> </ul>
<ul style="list-style-type: none"> <li>❑ Poor public perception of compost and composting</li> <li>❑ Lack of knowledge of benefits of organic processing alternatives</li> </ul>	<ul style="list-style-type: none"> <li>❑ Collaborative governance model</li> <li>❑ Education addressing each stakeholder issue</li> <li>❑ PR campaign</li> <li>❑ Research and data sharing; interagency coordination on research</li> <li>❑ Research on matching food waste streams to appropriate advanced technology facilities</li> <li>❑ Promote landscaping ordinances</li> <li>❑ Increase State government procurement</li> </ul>
<ul style="list-style-type: none"> <li>❑ ADC</li> </ul>	<ul style="list-style-type: none"> <li>❑ Phase out ADC/beneficial reuse credit</li> <li>❑ Phase in organics landfill ban</li> </ul>

## Infrastructure Expansion, Funding Considerations, and Non-monetary Incentives

Summary - Barriers	Summary - Solutions
	<ul style="list-style-type: none"> <li>□ Better implementation of highest and best use policy</li> <li>□ Determine air space gained by decomposition of green waste ADC vs. soil</li> <li>□ Ban woody materials suitable for energy production</li> <li>□ Better inspection and enforcement of ADC overuse</li> </ul>
<ul style="list-style-type: none"> <li>□ Feedstock/product quality issues for organic products</li> </ul>	<ul style="list-style-type: none"> <li>□ Address feedstock contamination</li> <li>□ Develop product standards</li> </ul>

## Market Issues and Increasing Procurement

Summary - Barriers	Summary - Solutions
<u>Lack of Education at all levels:</u> -Consumers -Industry -Regulators (water boards) -Product producers -Fear -Lifecycle benefit -Scientific evidence of benefit	<ul style="list-style-type: none"> <li>○ Govt Funding (Collaborative between govt agencies)</li> <li>○ Demonstrated evidence of benefit (market specific)</li> <li>○ Education vs. Marketing</li> <li>○ Education specific to all stakeholder groups</li> <li>○ Marketing – promising and delivering value ... Utility Branding Network</li> </ul>
<u>Research at all levels</u>	<ul style="list-style-type: none"> <li>○ Form a research center specifically for sustainable organics management</li> <li>○ Govt Funding (Collaborative between govt agencies)                             <ul style="list-style-type: none"> <li>-Reclamation – short term results</li> <li>-Longer Term – agriculture, for example</li> </ul> </li> <li>○ Feedstock specific research (food, biosolids, manure, green waste, blends)</li> </ul>

## Market Issues and Increasing Procurement

Summary - Barriers	Summary - Solutions
<u>Logistics (feedstock and product)</u>	<ul style="list-style-type: none"> <li>○ Local full cost accounting</li> <li>○ buyback programs (closed circle composting)</li> <li>○ local toolbox to assistance in local collaborative governance</li> </ul>
<u>Product Quality</u> -Feedstock Contamination -leads to public mistrust -leads to higher cost	<ul style="list-style-type: none"> <li>○ Correlate product to user</li> <li>○ compost use index</li> </ul>
<u>Cost/Price</u> Especially fertilizers Who bares the cost in the market channel	<ul style="list-style-type: none"> <li>○ Lifecycle cost analysis (tied to research)                          Specific to products and markets sectors and channels</li> </ul>
<u>Lack of Local Support by Govt</u>	<ul style="list-style-type: none"> <li>○ model ordinances (e.g. <a href="http://www.waterconservationsummit.com">www.waterconservationsummit.com</a>)</li> <li>○ encourage purchase and promotion by all levels of govt</li> <li>○ local toolbox</li> </ul>

## Regulatory and Siting Issues

### Summary - Barriers

Scientific coordination lacking.

- Too reactive
- Not enough structure

### Summary - Solutions

- Develop state clearinghouse for scientific study
- Make findings available
- Have information reviewed
- Have all agencies use the same information
- Benchmark science used
- Pursue regulatory coordination using science
- Use quantifiable/scientific measures for issues
- Form a center for sustainable management. Provide funding
- Create a legislative entity that can coordinate
- Have 1 agency coordinate science and permits
- Identify Best Management Practices using science and technologies to reduce emissions
- Identify goals for study: long-term, etc.

## Regulatory and Siting Issues

Summary - Barriers	Summary - Solutions
<p>ADC – unfair advantage over composting</p>	<ul style="list-style-type: none"> <li>• Initiate a statewide legislative ban on compostables as ADC</li> <li>• Initiate ADC fee on organics that could be composted/mulched</li> <li>• Remove diversion credit</li> <li>• Consider rural/urban dynamics when thinking of ban</li> <li>• Consider clean green versus dirty</li> <li>• Get info/data on soil versus green waste</li> <li>• Consider VOC impacts from ADC use when considering ban</li> <li>• Consider better use for reusable materials than ADC</li> <li>• Raise fees to discourage disposal, including organics</li> <li>• Develop markets before initiating ban on</li> <li>• Require public sectors to purchase fixed amounts of compost over time.</li> </ul>
<p>Permitting lacks clarity.</p> <ul style="list-style-type: none"> <li>• Level of standards may change over time.</li> <li>• Making a change at a facility may involve meeting local, regional and state requirements, which is time consuming and costly.</li> <li>• Operators hesitant in making changes since they could get bogged down in process.</li> </ul>	<ul style="list-style-type: none"> <li>• Look at economics when considering environmental concerns.</li> <li>• Level playing field for all permitting, especially for size.</li> <li>• Develop a statewide CEQA document for compost facilities. Benchmark requirements that must be met.</li> <li>• Develop clarified objective fixed standards: thresholds, criteria</li> <li>• Create an ombudsman to facilitate getting through system. Need to be sensitive about impact on rural areas.</li> </ul>
<p>Negative public perception of composting.</p>	

## Regulatory and Siting Issues

### Summary - Barriers

### Summary - Solutions

No state advocate for composting.

- Marketing versus regulatory within one agency.

Coordination of multiple agencies is lacking making it difficult to site and expand facilities.

Science is lacking in dealing with odor.

- Lack measuring tools.
- Without it bend to public/political pressure.
- Technology is becoming available that can measure.

Research coordination is lacking.

- Antidotal information trumps real science.
- Lack of peer review
- No state clearinghouse

Competing interests in land use.

- Environmental group wanted to use as park rather than as compost site.

## Regulatory and Siting Issues

### Summary - Barriers

### Summary - Solutions

Odors main NIMBY factor

- Lack of sanction allows bad actor to operate that impedes future siting.
- Unmitigated odors can effect siting of new facilities

Off site traffic is not as big an issue as odor.

Politics

Regulatory structure doesn't recognize natural progression of organics to agricultural and landscape use.

Too much reliance on landfills.

- Unlevel playing field between landfills and compost facilities regarding material.
- Compost facilities required to meet landfill requirements.

No credit for benefits.

- Regional agencies looking at compost facilities as pollution source rather than its benefits.

Air board lacking science on emissions: landfills and composting

- Need mitigation technologies/data

## Regulatory and Siting Issues

### Summary - Barriers

### Summary - Solutions

Problems with Title 14:

- Reference to CDFA agronomics rates in regulations is bogus
- Standards lacking for contaminant levels in finished compost
- Standards for finished products lacking

Balance lacking in enforcement using carrot and stick

Local land use issues

Emission data on composting lacking for air board rules.

Local government has to deal with bad actors and needs assistance to deal with issues

Too much permitted landfill air space. Unfairly competes.

## CIWMB Policy and Legislative Options

Summary - Barriers	Summary - Solutions
1. CIWMB's ADC Policy	
ADC Diversion Credit is a major barrier to moving green waste to composting or other alternatives to landfilling.	Create differential diversion credits to promote alternatives.
Lack of regional Analysis of ADC use and market ability to absorb materials.	Allowing no diversion credit for any landfill application of ADC would limit the benefits of using ADC at the landfill and would potentially encourage a shift of compostables to other alternative programs, like composting.
Not all ADC is organics or readily compostable—when reviewing Board's ADC policy this needs to be considered.	Continue to allow ADC use for landfill cover—this perspective should be considered as there are some landfills that may still need it for cover.
Current diversion credit scale does not put a premium on options that divert organics from landfill.	CIWMB fee on organics use as ADC
	Do not ban ADC across the board. Some uses may be acceptable such as MRF fines.
	Factor into regulation ADC impacts related to greenhouse gas. By adding this as an additional factor, ADC use might decrease.
	Allow anaerobic digesters using MSW waste stream to use residue as ADC, but not those that use clean waste streams. Caveat: May promote use of lower end products
	Target for diversion materials such organics, wood, etc. that should be pulled out.
	Immediately ban clean wood and brush and then over 3 years phase out use of green waste as ADC
2. LANDFILLS/PRICING	
Landfill expansions are allowing disposal	Cap expansions or moratorium on expansions for a set time period
	Amend landfill closure rules to give priority to resource recovery parks at closed landfills. Issue is that closed landfills are being used

## CIWMB Policy and Legislative Options

Summary - Barriers	Summary - Solutions
	for recreation areas. If we were to promote recovery parks we would have more places to site composting facilities, for example.
	CIWMB consider statewide surcharge on landfills and transfer stations to develop innovative diversion industries and overcome regional differences in pricing and support EPR, with 1/2 to state budget. Level of surcharge should be high enough (on par with European standards \$20-\$40) to truly make an immediate impact and stop inter-county and out of state transfer of waste.
	Move from a punitive system to a positive incentive system. E.g., create an incentive for jurisdictions to use organics and other materials in their own communities.
	Reward communities that keep manufacturing lands for recycling purposes.
	Require preprocessing prior to landfilling (e.g. Halifax model) so that no organics are buried in the landfill without preprocessing.
	Consider a fee on jurisdictions that don't meet State solid waste diversion goals.
	Reevaluate post-closure costs (e.g., long-term financial assurances for post-closure maintenance beyond 30 years and for corrective actions).
3. CROSS-MEDIA EFFECT, LACK OF UNDERSTANDING OF ENVIRONMENTAL BENEFITS BY REGULATORY AGENCIES.	
Inability to quantify the value of different aspects of organics diversion options	CIWMB should establish flexible research and development program for documenting benefits of agricultural compost uses, e.g. less fertilizer used, lower water use
Lack of understanding by regulatory agencies of the contribution of	CIWMB, ARB and, Water Board need to collaborate to ensure full understanding of the benefits and mass balances of composting and

## CIWMB Policy and Legislative Options

<b>Summary - Barriers</b>	<b>Summary - Solutions</b>
<p>composting to net environmental benefits</p> <p>Lack of data sharing between agencies (ARB, CIWMB, etc.)</p> <p>ARB lacking list of composters</p>	<p>coordinated regulatory and policy development. All three State agencies coordinate and form partnerships with local Air districts.</p> <p>Additional cross training and training between local diversion and LEAs/Enforcement and state level enforcement and assistance staff.</p>
<p>[Lack of attention to worker health and safety]</p>	<p>Examine occupational health and safety impacts (e.g., exposure of workers to health and safety risks from different organics management options)</p>
<p>Title 14 – gap in regulatory oversight regarding land application of organics.</p>	<p>Regulations need to be modified to adequately address land application gap in regulatory oversight regarding land application.</p>
<p>Lack of overall policy framework for diversion and linkage with greenhouse gas, and other policy drivers.</p> <p>Lack of coordination of CIWMB policy and the statewide renewable energy policy and AB 32</p>	
<p>[conflict between two missions]</p>	<p>Split Regulatory oversight from promotion and assistance.</p>
<p>Lack of a single comprehensive regulatory section/title that encompasses all aspects of organics management</p>	
<p>Disposal of solid waste is allowed to count as renewable activity under the statewide renewable energy portfolio</p>	

## CIWMB Policy and Legislative Options

Summary - Barriers	Summary - Solutions
4. INFORMATION GAPS/LACK OF FACTS AND LACK OF FULLER LIFECYCLE ANALYSIS AND BENEFITS	
Lack of facts: Regional analyses lacking, comprehensive analyses of lifecycle needed.	CIWMB should analyze the processing capacity in the state and set processing capacity goal(s).
Policy is not predicated on mass balance or total cost accounting.	State should consolidate information on and focus on collection costs and provide technical assistance on structuring costs in franchises, etc.
Lifecycle analysis across different management and technologies lacking.	CIWMB should conduct full analysis on environmental benefits and mass balance.
5. LACK OF FINANCIAL INCENTIVES FOR ALTERNATIVES	
Landfill disposal is too inexpensive.	Require that State projects funded by bonds use reused, recycled, and compost products.
False assumption of market barriers	Promote the increased use of variable rates.
Lack of financial incentives for alternatives / low cost to landfill	CIWMB adopt and implement best management practices regarding zero waste.
	Promote different types of fees/incentives at a local level (e.g., reduced franchise fee for achieving goals as used by Santa Clara)
	Develop and promote case studies of successful programs and practices.
6. OTHER	

**CIWMB Policy and Legislative Options**

<b>Summary - Barriers</b>	<b>Summary - Solutions</b>
	CIWMB promote local jurisdictions that include food waste collection as part of commercial and residential collection contracts.
	Foster extended producer responsibility: Increase use of reused, recycled, or compostable products for on-site and take out uses. CIWMB coordinate with industry to analyze options to increase compostability of food service ware. Make compostable products, especially plastics, more readily identifiable.
	US EPA/ US composting Council coordinate to promote labeling of compost/compostable products
	Fully evaluate impacts of regulations and requirements on LEA and local implementation of them.
	Increase food waste composting capacity: Partnerships between local programs and the CIWMB to overcome issues related to siting, financing, permitting, and resistance by local residents.
	CIWMB take a leadership role to consolidate data and create a publicity campaign to promote the benefits of composting (similar to the DOR cans and bottle campaign)

**CIWMB Policy and Legislative Options**

<b>Barrier/concern—The following is a list of all of the barriers that were identified by Stakeholders. The group voted and selected their top barriers, which are identified above.</b>
ADC
CIWMB’s ADC Policy  Lack of long term commitment, planning, and goals for the future for transitioning from landfilling to sustainable

## CIWMB Policy and Legislative Options

diversion structure.

ADC Diversion Credit

Lack of regional Analysis of ADC use and market ability to absorb materials.

Not all ADC is organics or readily compostable.

Lack of overall policy framework for diversion and linkage with greenhouse gas, and other policy drivers.

MASS BALANCE/LIFECYCLE/AGENCY COORDINATION

Policy is not predicated on mass balance or total cost accounting.

Lifecycle analysis across different management and technologies lacking.

Inability to quantify the value of different aspects of organics diversion options

Lack of data sharing between agencies (ARB, CIWMB, etc.)

Lack of understanding by regulatory agencies of the contribution of composting to net environmental benefits

REG/POLICY

Lack of coordination of CIWMB policy and the statewide renewable energy policy and AB 32

Lack of a single comprehensive regulatory section/title that encompasses all aspects of organics management

## CIWMB Policy and Legislative Options

Disposal of solid waste is allowed to count as renewable. Waste is considered a renewable feedstock resource under the statewide renewable energy portfolio

### INFORMATION GAPS/SHARING

Lack of Quantification of processing and capacity needs in the state.

ARB lacking list of composters

Lack of facts: Regional analyses lacking, comprehensive analyses of lifecycle needed.

Current diversion credit scale does not put a premium on options that divert organics from landfill.

### FINANCIAL/MARKETS

Landfill disposal is too inexpensive.

False assumption of market barriers

Lack of financial incentives for alternatives / low cost to landfill

Env. Impacts (air, water, etc.) of composting

### LANDFILLS

**CIWMB Policy and Legislative Options**

Landfill expansions is allowing disposal

Market Demand is a roadblock

Title 14 approval – there is a gap in regulatory oversight regarding land application of organics.

Regulatory status of on-farm digesters. Digesting food scraps