

# Environmental Regulations and Implications for Biomass Management in California

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# Feedstock

- 40 million tons MSW landfilled
- 30 percent organic in nature
- 170 permitted compost facilities
- 10 million tons processed
- 46 percent used as alternative daily cover

# Solid Waste (PRC 40191)

- Putrescible or non-putrescible solid semi-solid, or liquid
- Sewage sludge
- Vegetable solid or semi-solid waste

# Disposal Facility (PRC 40192)

- Disposal Facility
  - Composting
  - Gasification
  - Transformation
    - Distillation
    - Biological Conversion
    - Pyrolysis
- Biomass-to-Energy not considered disposal facility

# Biomass Conversion (PRC 40106)

Controlled combustion for producing electricity or heat:

1. Agricultural crop residues
2. Bark, lawn, yard, and garden clippings
3. Leaves, silvicultural residue, and tree and brush pruning
4. Wood, wood chips, and wood waste
5. Nonrecyclable pulp or nonrecyclable paper materials

# Transformation (PRC 40201)

- Incineration, pyrolysis, distillation, or biological conversion other than composting.
- Does not include composting, gasification, or biomass conversion
- Certain terms do not involve incineration
  - Distillation
  - Biological Conversion
  - Pyrolysis

# Gasification (PRC 40117)

- Noncombustion process
- Does not use air/oxygen
- No air contaminants/emissions including greenhouse gases
- No discharges to surface or groundwaters
- Produces no hazardous waste
- All recyclable and marketable green waste material removed prior to conversion

# Conversion Technologies

## Potential Definition

- Noncombustion thermal, chemical, or biological processes, other than composting,
- Residual solid waste to produce electricity, alternative fuels, chemicals, or other products.
- Conversion does not include anaerobic digestion, biomass conversion, composting or incineration.



# Infrastructure Challenges

- Difficulty siting/expanding compost facilities
- Difficulty siting/expanding solid waste facilities
- Population increasing
- How do we manage biosolids
  - No landspreading
  - Co-compost difficult

# Moving Forward

- Do we need definitions?
- Do we need prescriptive standards or performance standards
- Would doing nothing lead to potential Path of Least Resistance – Landfilling?