



APRIL 17-20
SACRAMENTO

2018




CWEA

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**AC18 Biosolids Beneficial Reuse –
An Array of Perspectives**

Bay Area Biosolids (BAB) Coalition



Sarah A. Deslauriers
April 18, 2018



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What is the BAB Coalition?



- 15 Member Agencies
- **Goal:** Develop additional all-weather alternatives to Class B land application + achieve GHG reductions
- Options must be diverse, long-term, local, and sustainable

Mission:

Develop a Diverse and Robust Portfolio of Beneficial Biosolids Resource Recovery Projects for the San Francisco Bay Area



Governor's 2030 goals provide opportunities to promote benefits of biosolids use



- Increase renewable energy (from 33% to 50%)
- 50% reduction in petroleum use in vehicles (reduce carbon intensity of fuel)
- Increase land-based carbon sequestration (Healthy Soils Initiative)
- Reduce short-lived climate pollutants (SB 1383 – divert organic waste, increase biogas production)



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'Business-As-Usual' is changing



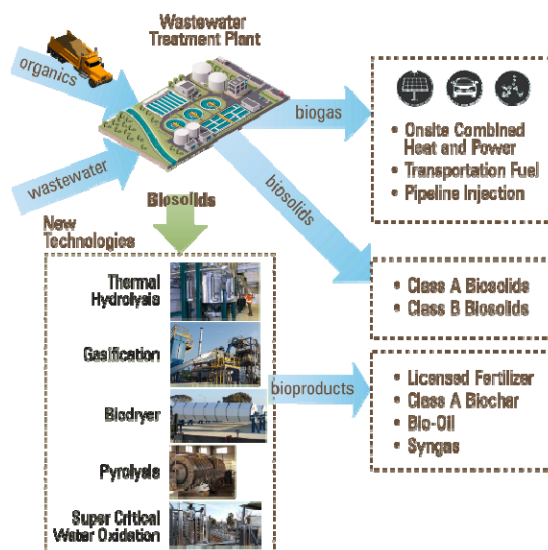
- **SB 1383:** 40% methane reduction by 2030 & 75% organic waste diversion from landfills by 2025
- **OPPORTUNITIES**
 - CalRecycle/SWRCB see a significant role for POTWs in accepting diverted organic waste to co-digestion and co-composting
- **ISSUES**
 - "...biosolids, sludges, digestate..." included in diversion
 - Land Application is restricted during wet weather in Solano County
- **NEED markets for biosolids and biogas!**




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Bay Area agencies examining post-digestion options to reduce volume & generate useful bioproducts



2017 work toward goal...




- **Defined quantity of biosolids** going to landfills and capacity of existing facilities to accept this material within the Bay Area
- **Outreach to technology providers, agencies, and other organizations** (WE&RF's Leaders Innovation Forum for Technology, U.S. DOE Bioenergy Technology Office, BAAQMD's Methane Expert Panel, etc.)
- **Developing partnerships** with local experts at LBNL, UC Davis, & UC Merced to explore opportunities for research to determine the value of biosolids
- **Screened >45 technologies** to determine viable options (relative maturity)





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Initial Screening Results



	Process Category
	Other (e.g., super critical water oxidation)
	Process Category
	Pyrolysis (requires dryer)
	Gasification (requires dryer)
	Hydrothermal Liquefaction
	Process Category
	Land Application (w/ storage)
	Compost (existing/future)
	Thermal Hydrolysis
	Dryers



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Looking Forward: 2018 Project Development

- Products:**
- Class B
 - Class A - Biosolids Compost
 - Liquid Fertilizer
 - Stored Biosolids
 - Biochar



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Develop Concept Facilities

1. **Identify/Evaluate Potential Host Sites - COMPLETE**
 - a. Available land area
 - b. Co-location benefits and constraints
 - c. Agency preferences
2. **Assess Market for Products – IN PROGRESS**
 - a. Evaluate near- /long-term markets
 - b. Consider marketing needs/limitations of technologies/approaches
3. **Develop Concept Facilities**
 - a. Determine use of each host site
 - b. Develop preliminary concept for each host site
4. **Evaluate Concept Facilities**
 - a. Develop key parameters
 - b. Develop planning level capital/O&M costs

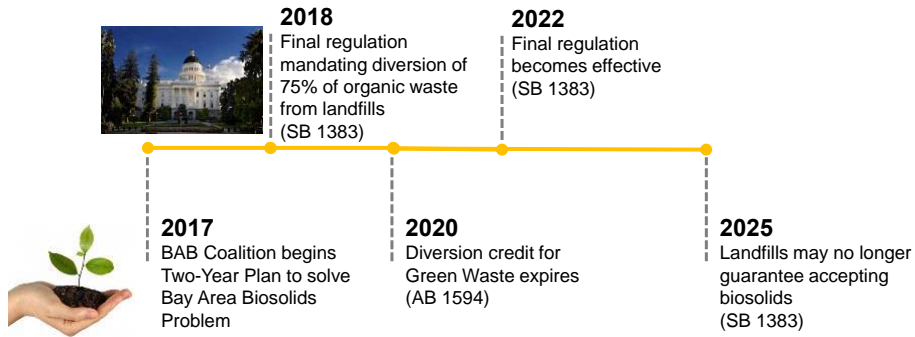


Advance One or More Facilities/Projects to Allow Planning/Permitting to Commence in 2019



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Coalition's collaborative approach will identify long-term, local, sustainable solutions!



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Q&A...

Thank you!

Membership is open to all – please contact Sarah Deslauriers at:

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(website update in progress!)



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