

A Regional Approach to Sustainable Biosolids Management



The Bay Area Biosolids to Energy (BAB2E) Coalition is exploring opportunities to recover resources from biosolids to generate reliable, renewable and sustainable energy which will directly benefit the San Francisco Bay Area community and our environment.

BAB2E: Seeking Dual-Purpose Solutions

Formed in 2006, BAB2E is a coalition of 19 San Francisco Bay Area public agencies working together to diversify biosolids management options through development of biosolids to energy – with the potential to serve as a model for other metropolitan areas across the United States.

What problem is BAB2E working to solve?

San Francisco Bay Area wastewater agencies have historically provided biosolids as fertilizer for agricultural use or as cover at local landfills. Current biosolids recycling options are becoming less viable:

- 1 reduction in landfill availability
- 2 changing regulatory conditions for land application of biosolids
- 3 hauling biosolids greater distances contributes to increased greenhouse gas emissions (GHG).

Benefits of BAB2E project:

- ✓ Converts low-value biosolids into high-value energy products
- ✓ Source of new, locally produced energy
- ✓ Creates local “green” jobs
- ✓ Offsets need for fossil fuels and natural gas, thereby reducing reliance on foreign sources of energy
- ✓ Significantly reduces truck mileage (presently more than one million miles annually)
- ✓ Helps meet goals set by California Global Warming Solutions Act (AB32) to reduce green house gas emissions 25% by 2020
- ✓ Proactively manages future uncertainties for biosolids industry.

Biosolids — An Untapped Resource

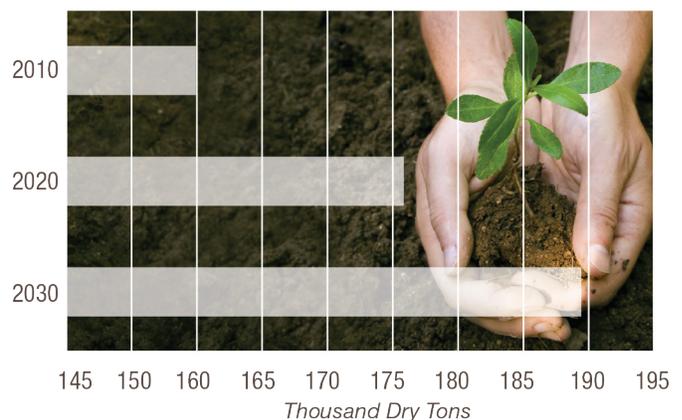
The biosolids remaining at the end of the wastewater treatment process contain valuable resources. Established and emerging technologies have shown the potential of converting biosolids into essential commodities such as fuel and electricity. Converted into new forms, biosolids can support the environmental and economic sustainability of California’s future.

A Challenge for Today, Opportunity for Tomorrow

Bay Area Clean Water Agencies report as of 2007, the San Francisco Bay Area generated approximately 158,000 dry tons of biosolids annually. As our local population increases, so does biosolids production.

While this is a challenge under our current practices, it also presents an opportunity to establish new sustainable alternative sources of energy now and for future generations.

PROJECTED BAY AREA BIOSOLIDS PRODUCTION



Source: Bay Area Biosolids Management: Challenges, Opportunities, and Policies, prepared for Bay Area Clean Water Agencies, September 2009, by M.Cubed

BAB2E TIMELINE 2003-2013



Biosolids — A Proven Alternative Energy

Many of the 40 wastewater treatment facilities in the San Francisco area are already successfully tapping energy from the wastewater process to offset some of their individual energy needs. BAB2E would make it possible to recover more energy for public or commercial uses.

Glossary Of Terms

Biosolids: nutrient rich organic materials remaining after completed wastewater treatment process.

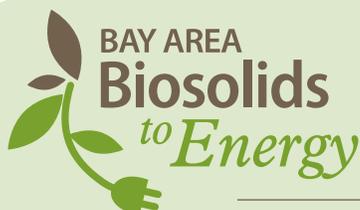
Domestic Waste: discharge from our bathroom, kitchen, laundry and toilet after personal use.

Wastewater: domestic waste discharged from homes, businesses and industries travels through an underground sewer system to a local wastewater treatment plant where it undergoes extensive physical, chemical and biological treatments.

Resource Recovery: collecting and separating certain waste materials for processing into new form which can be marketed as raw materials for new products.

Members of the Coalition

Central Marin Sanitation Agency
 City of Burlingame
 City of Livermore
 City of Millbrae
 City of Richmond
 City of San Jose
 City of Santa Rosa
 Delta Diablo Sanitation District
 Dublin San Ramon Services District
 Fairfield-Suisun Sewer District
 Ironhouse Sanitary District
 Palo Alto Regional Water Quality Control Plant
 San Mateo County Sanitation District
 San Francisco Public Utilities Commission
 Sausalito Marin City Sanitary District
 South Bayside System Authority
 Union Sanitary District
 Vallejo Sanitation & Flood Control District
 West County Wastewater District



A successful regional biosolids-to-energy initiative will reduce our need for imported energy supplies and help address San Francisco Bay Area climate change challenges.