



NBMA 2015 Annual Conf

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CA Assn of Sanitation Agencies

- **Represent more than 90% of sewerred population of California**
- **Collection, treatment, WW recycling**
- **Beneficial use of biosolids, energy production, nutrients, and water**
- **Legislative, legal, regulatory, and science based advocacy**

2014 CA Biosolids Use

- **688,000 dmt used or disposed**
- **433,000 dmt (64%) Land Applied or Distributed**
 - **271,000 dmt (39%) Class A Land Application or Distribution**
 - **209,000 dmt Compost**
 - **172,000 dmt (25%) Class B Land Application**

2014 CA Biosolids Use

- **113,000 dmt (16%) as ADC or Final Cover at Landfills**
- **9,000 dmt (1.3%) deep well injection**
- **81% Beneficial Use (CA basis)**

2014 CA Biosolids Use

- **60,000 dmt (8.7%) Landfill Disposal**
- **19,000 dmt (2.8%) Surface Disposal (DLD)**
- **20,000 dmt (2.9%) Incinerated**
- **31,000 (4.5%) Long Term Storage**

Governor's Healthy Soils Initiative

- **Budget initiative to improve CA soil health**
- **Working with CDFA, SWRCB, CalRecycle, USEPA to maximize opportunity**
- **Numerous public meetings**
- **Very positive even if not funded**

Reclamation of Fire Ravaged Land

- **Biosolids very effective in reclaiming fire ravaged land**
- **Reduce erosion, improve water quality and restore soil health**
- **May also allow native vegetation to replace invasive species**
- **Trying to quantify through research**

Reclamation of Fire Ravaged Land

- **Have met with key regulators and all are supportive**
- **Research team includes UC Davis – UC Riverside, Utah St, USEPA, UW**
- **Plan for research using Class B, Class A, Compost, but lack funding**
- **Still trying to find funding**

Other Reclamation Options

- **Superfund Mines**
- **Brownfields**
- **Wetlands**
- **Overgrazed Rangeland**

Biosolids Recycling

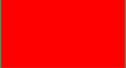





- **Roughly 700,000 dry metric tons produced in CA annually**
- **Most is land applied under state and federal regulations**
- **Avoids fossil fuel based inorganic fertilizer (each lb of inorganic N requires 0.22 gallons of fossil fuel)**
- **Sequesters carbon long term in soil**

Ordinance Revisions- New Day?

- **Working with numerous counties to revise ordinances**
- **Emphasis is to support a return to land application and improve soil health**
- **Note ordinances only impact unincorporated parts of Counties**

Biosolids Land Application in California

Status of County Ordinances

-  Ban on All Land Application
-  Practical Ban
-  Ban on Class B
-  Class B Land Application Allowed
-  Developing Ordinances
-  No Regulations/Ordinances Enacted



Kern County Update

- **Measure E Challenged in State Court January 2011**
- **Preliminary Injunction (PI) granted in June 2011**
- **Upheld in Court of Appeals 2013**
- **Summary judgement denied in Feb '15**
- **Trial date now set for January 2016**

State Mandates/Goals by 2020

- **33% Renewable Energy**
- **75% Recycling of Solid Waste**
- **Achieve 1990 levels of CO2 emissions**
- **10% reduction in Carbon Intensity of transportation fuel**
- **Reduce SLCP**

POTW AD/METHANE USE IN CA

- **238 Facilities in CA over 1 MGD**
- **153 of those facilities have AD**
- **91% of sludge in state is digested**
- **72% of facilities use methane produced but represents more than 87% of total flow in state**

Regulatory Jurisdictional Issue

- **Organic waste into AD is increasing – supports 75% recycling goal, etc.**
- **But who permits it? In CA both Solid Waste and Water agencies could!**
- **Developed permit language with Water Boards to satisfy CalRecycle**
- **Regulations now adopted which exempt POTWs**

Pipeline Injection of Methane

- **AB 1900 passed to facilitate direct injection into pipeline**
- **Phase 1 completed with CPUC adopting state recommended health standards and IOU recommended pipeline integrity standards**
- **Phase 2 considered cost, including interconnection & allocated \$40 Million to offset them**

SB 1122

- **Requires IOU procure 250 MW from:**
 - **110 - Wastewater and Urban Waste**
 - **90 – Dairy and Ag Waste**
 - **50 – Forest biomass**
- **Proposed decision adopted 12/18/14**
- **Decision on Cost adopted 9/17/15**

SCAQMD Rule 1110.2

- **South Coast and Central Valley in severe non-attainment for ozone**
- **Rule places restrictive emission limits on stationary IC engines**
- **Control Nox (11), VOC (30), and CO (250) ppm emissions as of Jan '16**
- **May make IC engines utilizing biogas too costly to operate (flare instead)**

SCAQMD Rule 1110.2

- **Are proposing a 1 year delay (2 for those sponsoring demonstrations)**
- **SSM portion still being debated**
- **Far reaching impacts to entire nation so believe SSM should be dealt with separately and fully vetted**

California LCFS

- **Must reduce CI of transportation fuel by 10% by 2020**
- **Developed 2 pathways for wastewater biogas conversion to fuel**
- **POTW < 21 MGD + 30 g CO₂e/MJ**
- **POTW > 20 MGD + 7.9 g CO₂e/MJ**
- **Compared with ~ + 95 for diesel/gas**

WET CAT

- **High Level team to address climate change and water-energy nexus**
- **CASA invited to join and developed work plan**
- **Quantify AD, Methane production and potential, energy usage at POTWs**
- **Interconnection issues**