Spring Biosolids Symposium

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CA Assn of Sanitation Agencies

- Represent more than 90% of sewered pop of CA
- Executive Director – Bobbi Larson
- State Lobbyist – Mike Dillon
- Federal Lobbyist – Eric Sapirstein
- Renewable Resource Programs – Greg Kester
- Legal/Regulatory Affairs – Adam Link
- Communications – Catherine Smith
2012 CA Biosolids Use

- 680,000 dmt used or disposed

- 369,000 dmt (54%) Land Applied or Distributed
  - 233,000 dmt (34%) Class A Land Application or Distribution
  - 165,000 dmt Compost
  - 136,000 dmt (20%) Class B Land Application
2012 CA Biosolids Use

- 154,000 dmt (23%) as ADC or Final Cover at Landfills
- 17,000 dmt (2.5%) as fuel for Cement Kilns
- 10,000 dmt (1.5%) deep well injection
- 81% Beneficial Use (CA basis)
2012 CA Biosolids Use

- 66,000 dmt (~10%) Landfill Disposal
- 20,000 dmt (~3%) Surface Disposal (DLD)
- 19,000 dmt (~3%) Incinerated
- 25,000 (~3.5) Long Term Storage
Biosolids Land Application in California

Status of County Ordinances

- **Red**: Ban on All Land Application
- **Light Pink**: Practical Ban
- **Orange**: Ban on Class B
- **Green**: Class B Land Application Allowed
- **White**: Developing Ordinances
- **Light Blue**: 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

- State Supreme Court reviewing timing question – unrelated to merits
AB 371 (Salas)

- Legislation Introduced in Late March which would allow Kern County BOS to ban biosolids application

- Would essentially circumvent ongoing litigation

- And set a dangerous precedent which would threaten entire state
AB 371 (Salas)

- Passed 2 Assembly Committees and was then set to be heard on Assembly floor

- CASA members responded with opposition letters so pulled from floor

- Reintroduced in January – monitoring of groundwater and soil for unknown list of compounds
Mine Reclamation

- US EPA Region 9 Superfund held forum in November 2012 supporting the use of biosolids for mine reclamation

- Sally Brown, Rufus Chaney, Kirk Scheckel other experts provided research and real world experience

- All in attendance very supportive
Mine Reclamation

- Tremendous opportunity to recycle biosolids – turning moonscapes into habitats
- Synagro awarded contract for mine reclamation near Prescott, AZ using CA biosolids compost
- Work completed in May – great success
- Working to reclaim CA mines next
Reclamation of Fire Ravaged Land

- Biosolids very effective in reclaiming fire ravaged land

- Not only in revitalizing soil but by allowing native vegetation to replace invasive species

- Reduce severity potential of future fires

- Support at state level but no projects yet
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
Legislative and Regulatory

- AB 1900 – Facilitate Pipeline Injection of Biomethane
- SB 1122 – Requires IOU procurement of 250 MW Bioenergy
- Jurisdictional authority issues
- Clean Air Act versus Climate Change
Pipeline Injection of Methane

- AB 1900 passed to facilitate direct injection into pipeline
- State developed health standards
- Working on pipeline integrity stds
- IOUs vary in responsiveness
- Interconnection costs huge hurdle
SB 1122

- Requires IOU procure 250 MW from:
  - 110 – Wastewater and Urban Waste
  - 90 – Dairy and Ag Waste
  - 50 – Forest biomass

- Issues with eligibility and repowering definitions – will work with CEC to affect change

- Interconnection costs
Regulatory Jurisdictional Issue

- Organic waste into AD is increasing

- Supported by CEC, CPUC, SWRCB, CDFA, and CalRecycle

- Have been working with CalRecycle and SWRCB since ‘09 to resolve jurisdictional questions

- Finally near resolution!
Jurisdictional Authority Issues

- 2009 Document stated TS/PF permit would be at discretion of Local Enforcement Agency (LEA)

- CASA argued that POTWs are already regulated for this under water and air permits

- Patchquilt regulatory landscape creates unnecessary disincentive
Hauled in Organics for AD

- SWRCB NPDES/WDR permit language requiring SOPs, training, and tracking was developed

- CalRecycle included exclusion language in regulations as long as POTW is in compliance with this permit condition

- Hopeful SWRCB actions fill gap until CalRecycle regs are final
CDFA Rendering Rules

- First proposed regs in July 2010
- Could have considered POTWs as renderers if they accepted FOG
- Ongoing discussions ultimately resulted in exemption for POTWs
- Regulations Became Final April 1, 2013!
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)
Low Carbon Fuel Standards

- One option which may prove viable is the LCFS (State, FED RIN, & Fuel)
- CARB developing protocols for various fuel feedstocks
- POTWs methane to fuel has a very attractive carbon intensity
- Small to medium (5-20 MGD)
  - 11.5 g CO2e/MJ
- Large (>100 MGD)
  - -65.3 g CO2e/MJ
Low Carbon Fuel Standards

- For comparison –
  - Diesel 97gCO2e/MJ
  - Gas = 98 gCO2e/MJ

- Credits available through CA LCFS and Federal RFS RIN programs

- Plus use of value of fuel

- Down side is that power now must be purchased
Bay Area Biosolids to Energy

- Consortium of 20+ agencies seeking new technology to produce energy from biosolids

- RFP responses received Oct 2013

- Desire proven technology but limited options

- Demonstration project funded by CEC
Arsenic Cancer Slope Factor

- Proposed change for IRIS CSF for inorganic arsenic published 2/19/10
- Science Advisory Board (SAB) initially drafted support letter but withdrew
- Congress/NAS called for change
- Process to use best science underway
**Triclosan (TCS)**

- Dr. Tom Young – UC Davis - Evaluated CA biosolids and impacts of triclosan on microbial populations

- Found increase in population density and diversity even though TCS on own is toxic

- Key is all other TOrCs should also have been present, though not focus