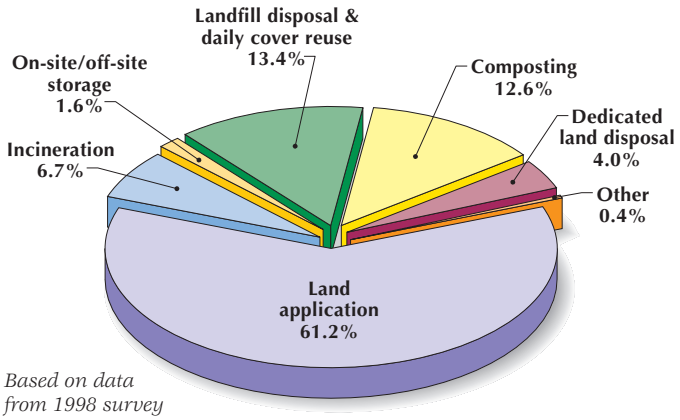
California Association of Sanitation Agencies
925 L Street, Suite 1400
Sacramento, CA 95814
916 • 446-0388
fax: 916 • 448-4808
website: www.casaweb.org

Biosolids Fact sheet

What Are Biosolids?

- Biosolids are the safe, nutrient-rich natural by-product of wastewater treatment. They are highly processed and thoroughly analyzed to ensure their safety. Biosolids are used in four forms: as a rich moist soil, dried pellet, liquid, or compost. Biosolids generally are recycled as a soil amendment, but also are being used in some industrial processes in California.
- Class B biosolids are safe to use and may have low levels of pathogens (disease-causing organisms) which rapidly die-off when applied to soils, essentially becoming pathogen free within a short period following application. Class B biosolids that meet all regulatory and health requirements may be applied to non-food crops. Class A biosolids are essentially free of pathogens prior to land application. Rigorous management practices for both Class A and Class B biosolids minimize the possibility of attracting any insects or other pests.
- Land-applied biosolids must meet special federal and state standards for 10 regulated metals (from arsenic to zinc). Some biosolids are classified as "Exceptional Quality" (EQ), meaning that they have even lower levels of the regulated metals.
- Californians generate 750,000 dry tons of biosolids every year, most of which are Class B biosolids.

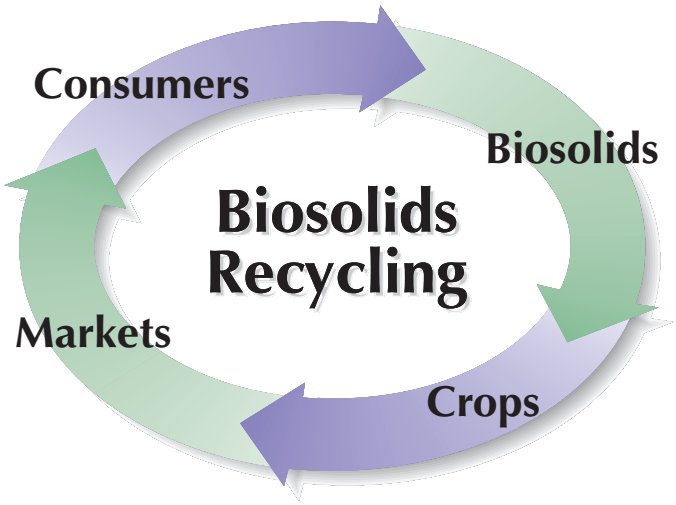
How We Manage Biosolids in California



Based on data from 1998 survey

Public Policy Issues

- Public policies need to support biosolids recycling through land application and composting and discourage wasteful practices such as landfilling.
- Federal, state, and local regulations affecting biosolids recycling need to assure the public of the safety of biosolids by reflecting the scientific findings about biosolids safety and value for the public and the environment.
- The public sometimes opposes land application of biosolids based on fears about potential adverse effects on health, safety, and the environment.



Environmental Benefits

- Biosolids recycling improves soil quality.
- Biosolids improve the soil's ability to absorb and store moisture, reducing the need to irrigate and providing natural drought resistance.
- Biosolids recycling reduces the need for more landfills.
- Biosolids use in agriculture protects groundwater because, unlike commercial chemical fertilizers, plant nutrients are released slowly, eliminating excess nitrogen (nitrate) release into groundwater.

Commercial Benefits

- Lands farmed with biosolids have higher crop yields.
- Biosolids can improve soils that otherwise would not support grazing or crops.
- Biosolids use lowers fertilizer use and expense, as nutrient-rich biosolids can supplement or replace commercial chemical fertilizers.
- Biosolids promote rapid timber growth.
- Biosolids can help reclaim land damaged by open mines and gravel pits.

How Are Biosolids Handled?

- Strict state and federal regulations govern biosolids recycling and ensure public safety.
- Trained personnel conduct quality testing at wastewater treatment plants to ensure all biosolids meet or exceed regulatory standards before recycling.
- Enclosed trucks carry biosolids to farms.
- Spreading equipment applies biosolids to the land. Biosolids are promptly tilled into the earth so the soil can get maximum nutrient benefits from the biosolids. Biosolids are not spread on windy days.
- Class B biosolids recycling sites have buffer zones, limited public access, and meet crop and harvesting guidelines. Class A biosolids have fewer restrictions.
- Post-application reporting and regular inspections by the local enforcement agency ensure that biosolids recycling activities meet all regulatory guidelines.

What Major Laws Regulate Biosolids?

- U.S. EPA's Part 503 Biosolids Rule
- California State Water Resources Control Board's General Waste Discharge Requirements ("General Order")
- Local ordinances and permits

Who Oversees Biosolids Generation and Management Activities?

- Local public agencies that produce biosolids
- Local enforcement agencies, such as county health departments
- Regional Water Quality Control Boards
- State Water Resources Control Board
- Air Pollution Control Districts/Air Quality Management Districts
- U.S. Environmental Protection Agency

For More Information:

- National Biosolids Partnership: *http://biosolids.policy.net/*
- U.S. Environmental Protection Agency: *http://www.epa.gov/owm/*
- California State Water Resources Control Board: *http://www.swrcb.ca.gov/programs/biosolids/*

Before Biosolids Application *After Biosolids Application*