City of Los Angeles
Biosolids Fact Sheet

City of Los Angeles • Department of Public Works • Bureau of Sanitation

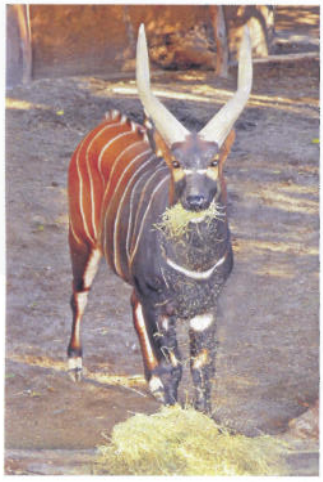
What are biosolids?

Biosolids are the nutrient-rich organic product of wastewater treatment. During treatment, bacteria and other tiny organisms break sewage down into simpler, organic matter, which contains essential plant nutrients. The biosolids are then recycled as fertilizer and soil amendment.

How much and what kind of biosolids are produced by the City?

The City of Los Angeles serves more than four million people and contracts with 29 cities and other agencies for their wastewater treatment. About 360 million gallons of wastewater are treated each day at the Hyperion Treatment Plant and 30 million gallons are treated daily at the Terminal Island Water Reclamation Plant. Hyperion and Terminal Island respectively produce approximately 650 and 50 wet tons per day of Exceptional Quality (EQ) biosolids. EQ biosolids meet the most stringent standards for metals and are treated above Class A levels, which contain little or no pathogens. Class A biosolids are found in fertilizing material sold in home improvement stores and are safe to touch and use in gardens.

Where are the biosolids beneficially used?



Currently, the City of Los Angeles beneficially reuses biosolids by applying them to farmland and by producing compost at various facilities and its own Griffith Park Composting Facility (GPCF). At GPCF, biosolids are mixed with green waste recycled from Griffith Park and manure removed from the animal cages at the Los Angeles Zoo. The materials are combined and composted for 60 days. About 50 percent of the final compost product is used on City-owned property for landscaping purposes, and the remaining 50 percent is sold to farmers or donated to civic organizations for special projects. The City also owns the 4,688-acre Green Acres Farm in Kern County, California. Approximately 75% of the City-produced biosolids are applied as a soil amendment to grow non-food crops such as corn, wheat, and alfalfa. The crops are harvested by local farmer and used for feedstock. In 2012 some of the crops from Green Acres Farm were used for feed at the Los Angeles Zoo. Alfafa and Sudan hay are feed to animals such as bongos, zebras, and rhinoceroses.

What are the benefits of land application of biosolids?

Land application of biosolids, which is practiced throughout the United States, is beneficial to farmers, municipalities, and the community. Approximately 57% of biosolids produced in California are land applied (based on 2011 reported data). Biosolids recycling and reuse adds nutrients and positive soil characteristics to agricultural land, thereby increasing crop production. Recycling biosolids saves local and state governments significant amounts of money through lower management costs, the sale of biosolids derived products, and by not taking up valuable landfill space.

What are some of the concerns and risks of land application of biosolids?

Years of research have shown that land application of biosolids is safe when conducted according to regulations. However, concerns do still remain regarding soil and ground water contamination from trace elements, toxic chemicals, and potentially harmful disease-causing organisms. In response to these concerns, the U.S. Environmental Protection Agency conducted a comprehensive risk assessment that evaluated the health risks to the general population, as well as to a highly exposed individual. Biosolids are monitored for metals, pathogens, organics, and inorganic constituents. Monitoring of biosolids is performed during and after production and at the land application sites. Groundwater monitoring occurs at the land application sites and soil analyses are performed to ensure proper nutrient management for specific crops planted. Monitoring is performed by state certified laboratories. To date, there have been no documented cases of negative impacts to human health or the environment when a biosolids program has met regulatory requirements and follows best management practices.

How does the City manage its biosolids program?

The City of Los Angeles has a biosolids policy that guides the biosolids management program. The policy commits the City to maintaining 100 percent beneficial use of EQ biosolids produced at its wastewater treatment plants in compliance with all federal, state, and local regulations. To maintain a diversified beneficial reuse program, the City will continue with source-control compliance and investigate and implement feasible, innovative, and cost effective resource recovery options. The policy also establishes long-term goals for the program. Those goals include following best management practices established by the California Water Environment Association Manual of Good Practice for Agricultural Land Application of Biosolids and implementing a Biosolids Management Plan (BMP) that meets or exceeds requirements established by the National Biosolids Partnership (NBP). The City's BMP Environmental Management System (EMS) is a management tool based on continuous improvements in monitoring regulatory compliance, management practices, environmental performance, and interaction with interested parties. EMS requires external oversight by an independent third party who verifies that the City is conforming to the requirements established by the NBP. The City's EMS has been verified by an independent auditor and recognized as a platinum certified agency in the NBP BMP program since 2004. With the EMS implementation, the City's biosolids management program has never been more organized, efficient, responsive to interested parties, and protective of the environment.

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National Biosolids Partnership Certified Management Program