

Biosolids Recycling 2007 Summary

WHERE do the biosolids go?

For more than 30 years, King County has been turning wastewater solids into a natural resource called biosolids. This valuable soil amendment can be used to build soils, fertilize crops and other plants, and revegetate barren areas.

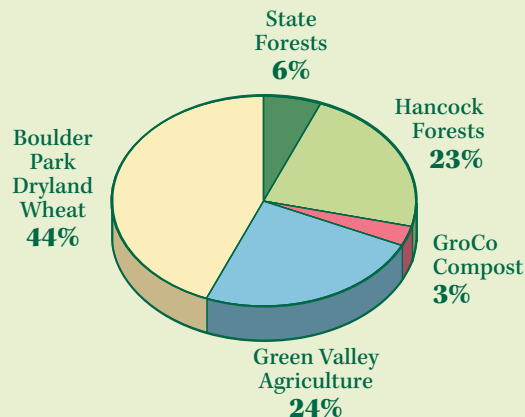
All of King County's biosolids are used beneficially in agriculture and forestry or as an ingredient in compost. When recycled into the soil, biosolids will:

- retain soil moisture
- reduce erosion
- add organic matter
- improve soil tilth
- slowly release essential nutrients

Continual Improvement

In June 2007 King County's Wastewater Treatment Division became one of only 12 public agencies in the nation to attain Platinum Level certification of its Environmental Management System for biosolids. King County Executive Ron Sims said "Attaining Platinum Level status is a significant accomplishment, but more than that, it's a vote of confidence in our program and the high quality of biosolids we produce." Our accomplishments include:

- Used B20 biodiesel in our fleet during warm months.
- Designed digester enhancement system at West Point Treatment Plant.
- Developed new source control screening levels for volatile and semi-volatile organic compounds.
- Developed policy for permitting of biotechnology industry discharges in our service area.
- Improved septage receiving procedure at South Treatment Plant.



108,003 tons of biosolids
(26,500 tons of dry biosolids)

West Point: 46,420 tons (4 daily truckloads)
South Plant: 61,584 tons (6 daily truckloads)



King County spent about \$6.3 million in 2007 on its biosolids management program. Land application and transportation to project sites averages \$47 per ton. The program generated more than \$112,000 in fertilizer revenue from customers.

Transportation to project sites	54%
Land application	26%
Land application support (monitoring, research, permits)	9%
Staff wages and benefits	11%
Total budget	100%



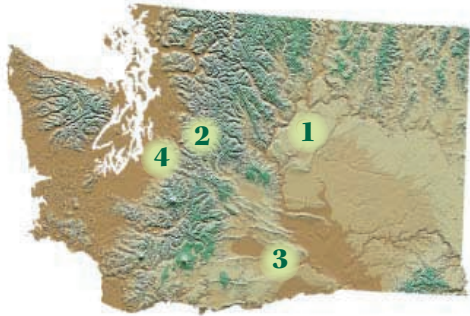
King County

Department of Natural Resources and Parks
Wastewater Treatment Division

Resource Recovery

<http://dnr.metrokc.gov/wtd/biosolids/>

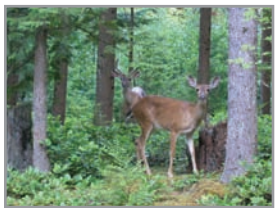
Partnerships in Recycling



1 Boulder Park Soil Improvement Project

encompasses more than 50,000 acres of dryland grain crops in Douglas County. More than 120 landowners and farmers

participate in this project. Biosolids from other agencies are also recycled at this site, helping to satisfy local demand. In 2007, King County biosolids fertilized 3,900 acres of wheat and 740 acres were fertilized with biosolids from other sources.



2 Mountains to Sound Greenway Biosolids Forestry Program

is a partnership of private and public agencies that uses biosolids to fertilize and preserve working forests in

eastern King County. In 2007 biosolids were applied to 354 acres of state forestlands and to 1,162 acres of Douglas-fir plantations in Hancock's Snoqualmie Forest.



3 Green Valley Project

in the Yakima Valley includes more than 35,000 acres of hops, orchards, alfalfa, canola and managed rangeland. In 2007, King County biosolids were

applied to 534 acres of hops, 126 acres of timothy-grass for hay and 314 acres of canola.



4 GroCo Compost

has been produced and marketed by a private company, GroCo Inc., for more than 30 years. This composted mixture of biosolids and sawdust is used in

residential and commercial landscaping, home gardens and soil restoration.

Research and Education

King County is a founding member of the Northwest Biosolids Management Association (NBMA). Members collaborate on research, share technical information and receive training on biosolids recycling. Scientists from University of Washington, Washington State University and University of Arizona conduct research. In 2007, research projects included estimating carbon sequestration of biosolids recycling options and evaluating the potential for biosolids application projects to qualify for carbon credits for trading on the Chicago Climate Exchange. Studies also include fate of organic chemicals following land application and plant growth and yield response to biosolids.

In a partnership between the Biosolids Program and the Mountains to Sound Greenway Trust, a poster was created to provide students with information about biosolids recycling and water quality. It is being used in the Greenway's environmental education program in local schools and by our community relations staff during school tours of the treatment plant. During 2007, more than 4500 students were introduced to the wastewater process, biosolids recycling and what each person can do to keep the environment clean.



The Biosolids Team

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For more information on biosolids recycling or for tours or lectures, see our Web pages at <http://dnr.metrokc.gov/WTD/biosolids> or call 206-684-1247.



King County

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