

May, 2006

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# Biosolids Division Monthly Report

Submitted to:

**Glenn S. Gerstell**  
Chairman of the Board

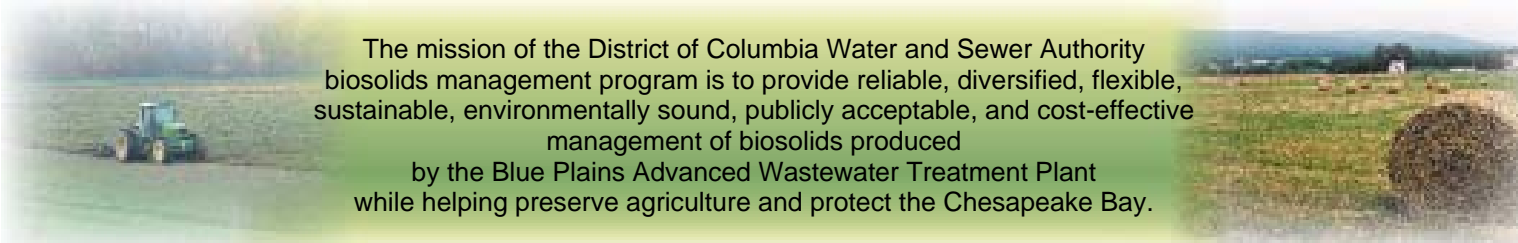
Submitted by:

**Chris Peot**  
Biosolids Division Manager



## District of Columbia Water and Sewer Authority

Biosolids Division  
5000 Overlook Avenue SW  
Washington, DC 20032  
202-787-4329; 202-787-4226 (fax)  
[chris\\_peot@dcwasa.com](mailto:chris_peot@dcwasa.com)

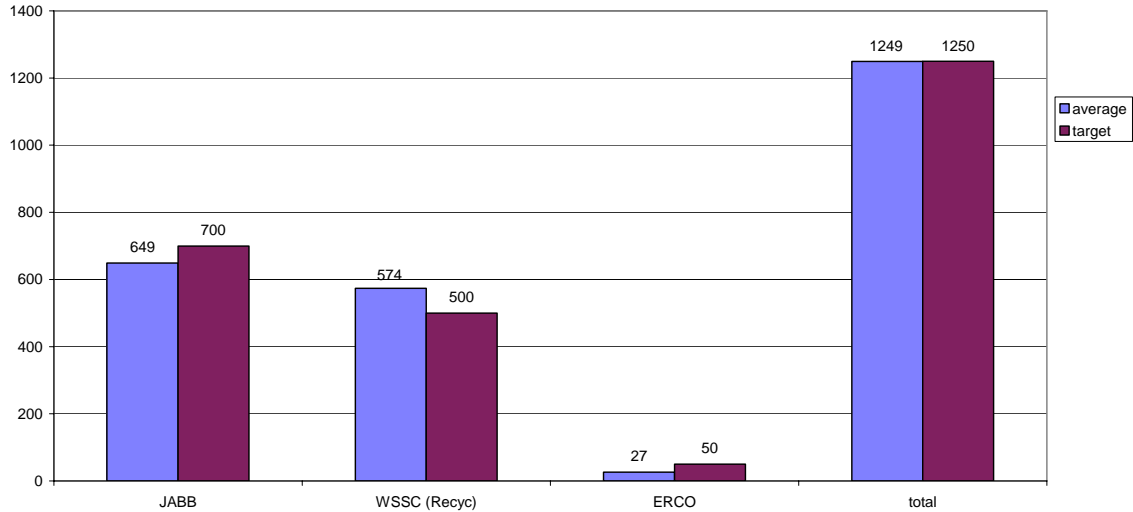
A photograph of a rural agricultural landscape. In the foreground, a green tractor is working in a field. In the background, there are rolling green hills and a large hay bale in the lower right corner.

The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant while helping preserve agriculture and protect the Chesapeake Bay.

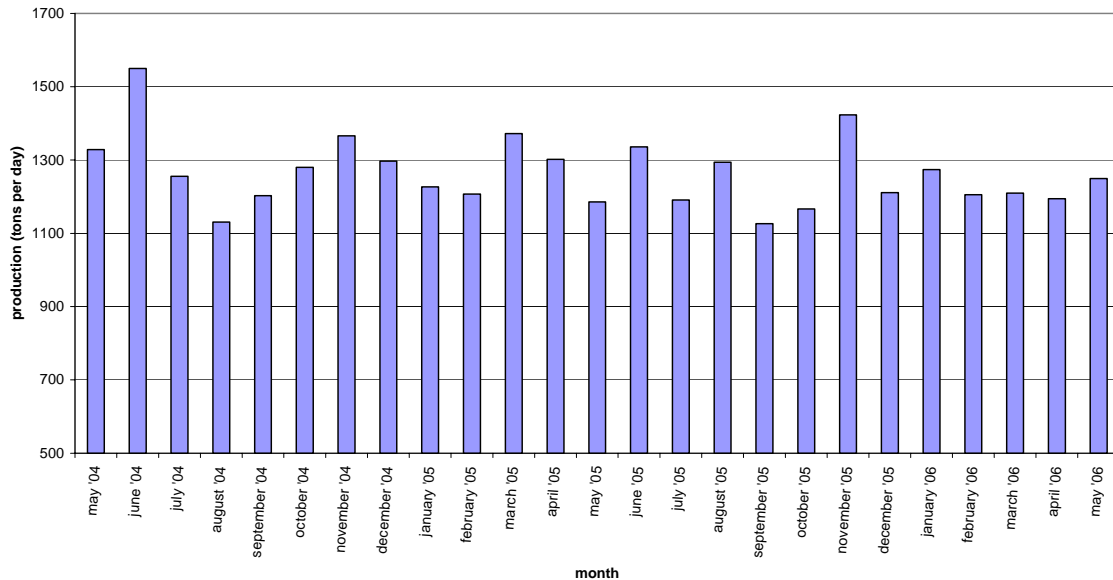
## May 2006 Blue Plains Biosolids Report

In May, biosolids hauling averaged 1249 wet tons per day. The graph below shows the hauling by contractor for the month of May. A second graph shows the average daily production per month for the previous 24-month period.

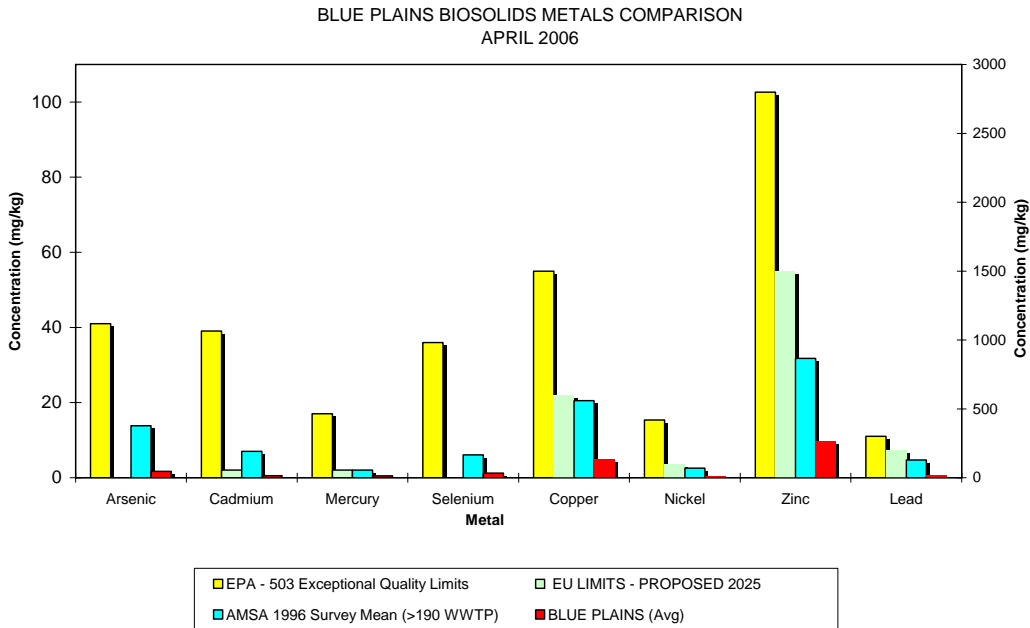
Average Daily Hauling by Contractor for May, 2006



Average Daily Biosolids Production



The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of April 2006. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European Union (EU) limits.



## HIGHLIGHTS

Staff attended a Biosolids Use Information Committee (BUIC) at the Virginia Farm Bureau (VFB) Bldg in the West Creek Office Park in Goochland County on Wednesday May 24. The guest speaker, Dr. Erik Ervin, presented a talk entitled "Auxin-boosted biosolids effects on drought-stressed grass." Dr. Ervin is an Associate Professor of Turfgrass Physiology at the Virginia Tech main campus in Blacksburg, and the research findings presented came from a project that WASA funded through the nutrient rebates in the biosolids reuse contracts.

Through the process of discovery during a WASA odor reduction research project, researchers found that microorganisms in the wastewater treatment process break down proteins into amino acids. One such amino acid, tryptophan, breaks down further to an auxin, indole acetic acid. Auxins are a class of plant growth substance (often called phytohormones or plant hormones). Auxins play an essential role in coordination of many growth and behavioral processes in the plant life cycle.

Anecdotal evidence has shown for years that biosolids help farmers get through drought conditions. Dr. Ervin's work showed that plots of turf grass treated with boosted levels of tryptophan (naturally occurring in the biosolids and not present in inorganic fertilizers) gave crops better drought resistance than plots without. Although differences were seen, they were not as dramatic as is sometimes seen in the field. Further studies are planned to look for other essential plant hormones and other conditions that might promote drought resistance with biosolids use.

# Map of Blue Plains Biosolids Applications and Agricultural \$'s for April 2006

