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# Biosolids Division Monthly Report

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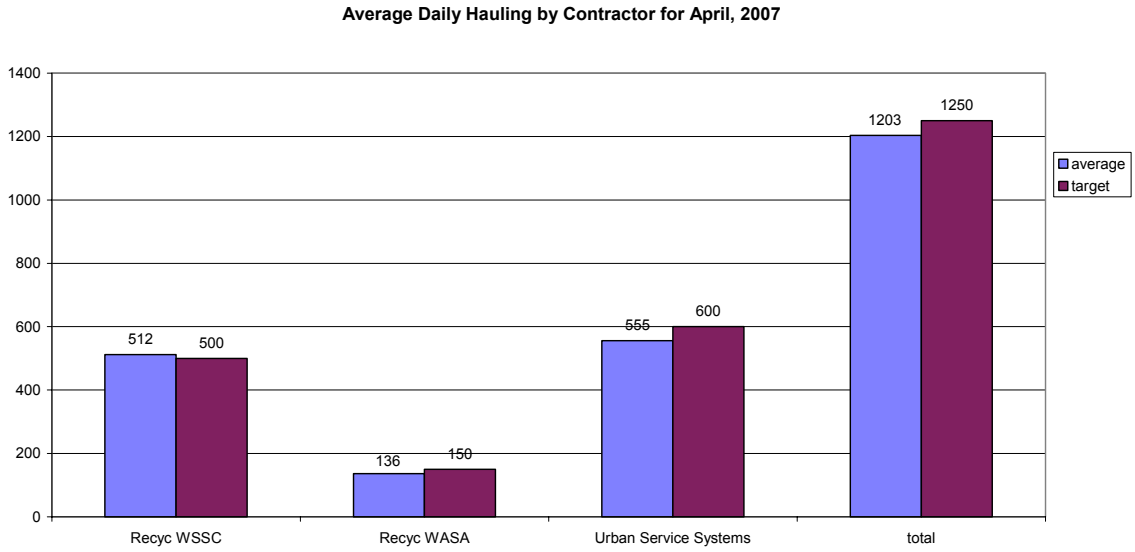
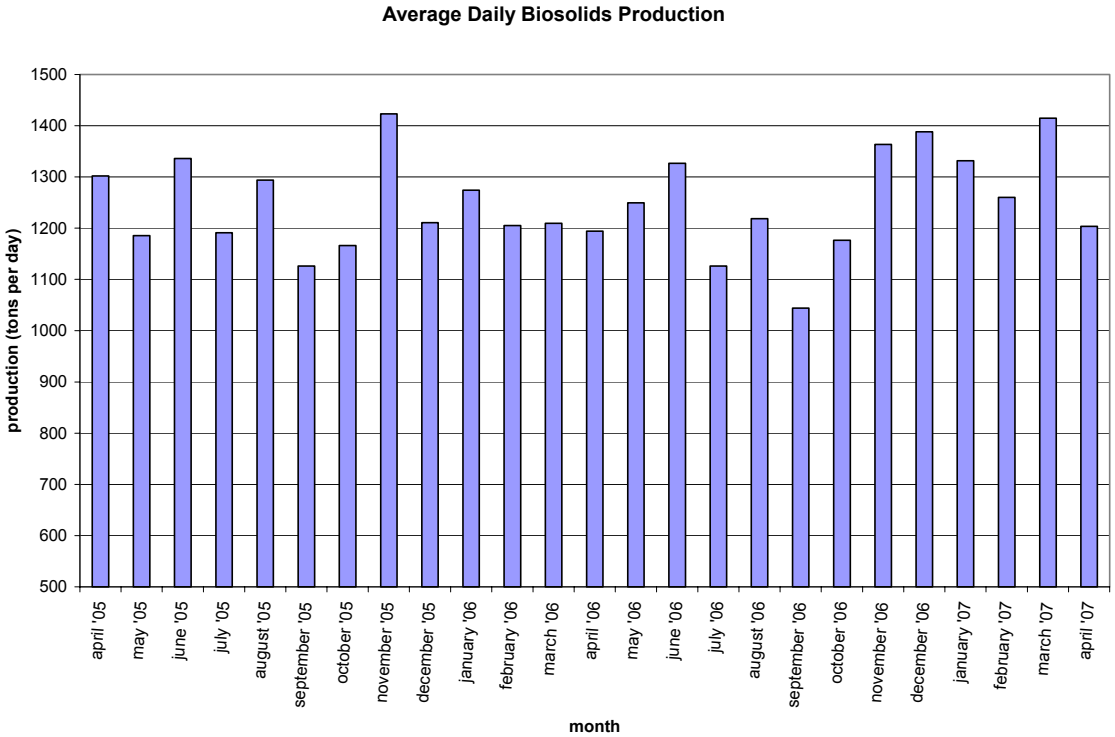
The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant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

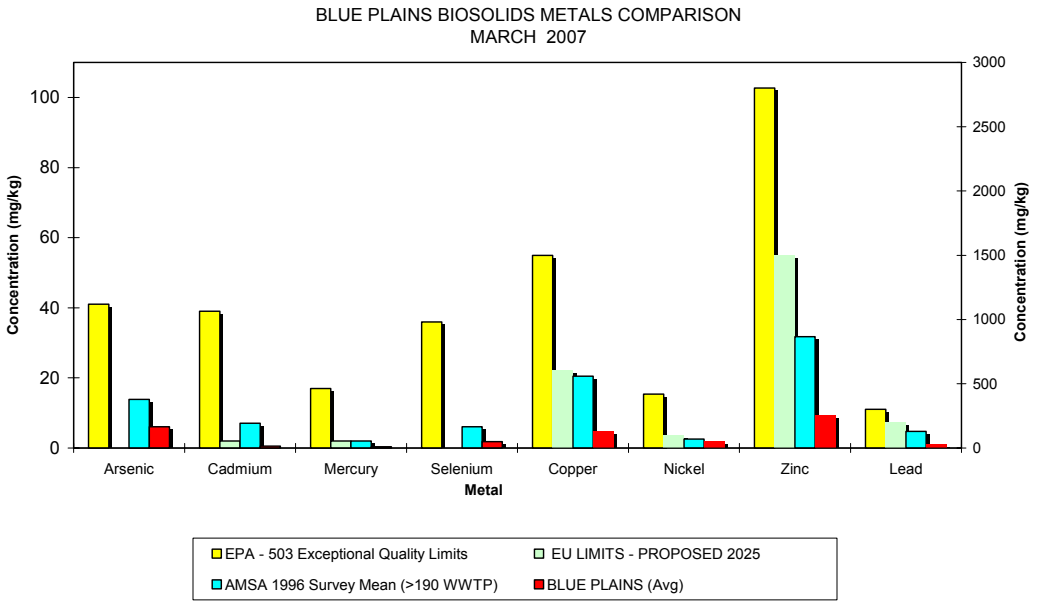
## April 2007 Blue Plains Biosolids Report

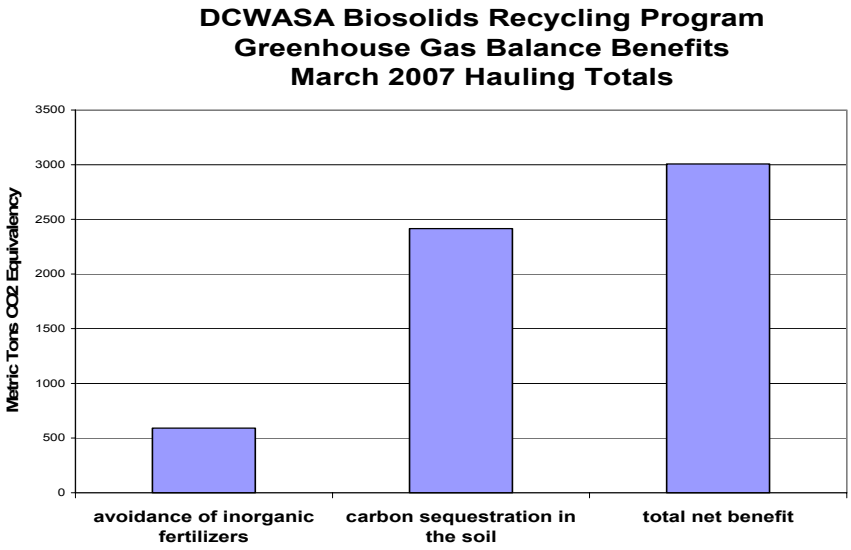
In April, biosolids hauling averaged 1203 wet tons per day. The graph below shows the hauling by contractor for the month of April. A second graph shows the average daily production per month for the previous 24-month period. The average % solids for the month was 24.2 %, and average daily lime delivery was 56.51 tons per day. Average lime dose for the month was 19.4% on a dry weight basis.



The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of March 2007. 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.




In March of 2007 staff sent 45,218 wet tons of biosolids for reuse. This includes tonnage coming straight out of Blue Plains and material coming out of storage. No material went to landfills in March. The graph above shows the benefits as compared to landfilling all the biosolids in a non-energy recovering landfill. Taking into account the fuel required to transport biosolids to the field, the net benefit is 3007 metric tons CO2 equivalent avoided emissions. The graph shows the benefit (carbon credit) of the sequestration, of the energy savings due to avoiding conventional fertilizer use, and of the total of the two. This is equivalent to taking 6,334,008 car miles off the road in the month of March (assumes 20 mpg, 19.4 lb CO2 emissions/gallon gas – EPA estimate).

## HIGHLIGHTS

Staff attended the Water Environment Federation residuals conference in Denver last month, where staff, researchers, and interns presented 8 papers and led a half day technical workshop. The papers presented involving DCWASA personnel, projects, and researchers included:

1. Fecal Regrowth Workshop, Dr. Sudhir Murthy, DCWASA
2. Drought Assessment of Auxin Boosted Biosolids – Dr. Erik Ervin, Va Tech
3. Increases in Indicator Bacteria Densities after Digestion and Dewatering – Dr. Matt Higgins, Bucknell University
4. Biosolids Odor Reduction by Managing Solids Inventory in the Secondary Activated Sludge Treatment System – Kweku Sekyiamah (U of MD, former intern)
5. Statistical Biosolids Odor Prediction Models Using Process Parameters – Sirapong Vilalai, U of MD (current intern)
6. Effect of Alum Addition on Odorant Production from Anaerobically Digested Biosolids – Yen-Chih Chen, Bucknell University
7. Impacts of Dewatering Processes on Production of Odor Causing Compounds – Dr. Matt Higgins, Bucknell University
8. Impacts of MicroSludge Process on Odor Causing Compounds – Dr. John Novak, Va Tech

Staff participated on a panel discussion for the Kojo Nnamdi radio show on WAMU. The show was described by WAMU as follows: Where Do Our Waste Products Go? More than eight million tons of sludge -- the muddied, dry substance left behind after sewage is treated -- is produced in the U.S. each year. No one knows exactly how harmful sludge may be, but some activists say it's toxic. We examine how sludge is treated and regulated. Guests: Robert Hale, Professor of Marine Science in the Department of Environmental and Aquatic Animal Health at the Virginia Institute of Marine Science, College of William and Mary. Laura Orlando, Resource Institute for Low Entropy Systems (RILES). Chris Peot, Manager of Biosolids, Blue Plains Advanced Waste Water Treatment Plant, DC Water and Sewer Authority.

# Map of Blue Plains Biosolids Applications and Agricultural $'s for March 2007