

July, 2009

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# Biosolids Division Monthly Report

Submitted by:

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Biosolids Division Manager

## District of Columbia Water and Sewer Authority

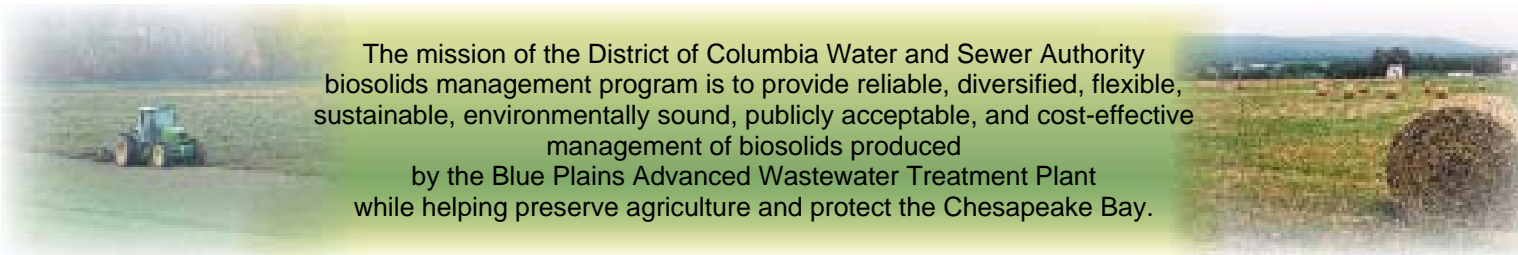
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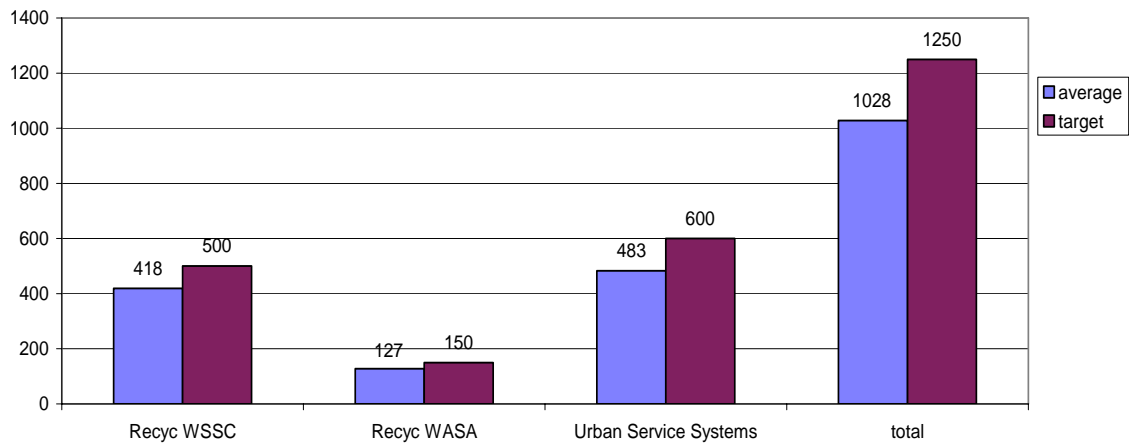
The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant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

## June/July 2009 Biosolids Division Report

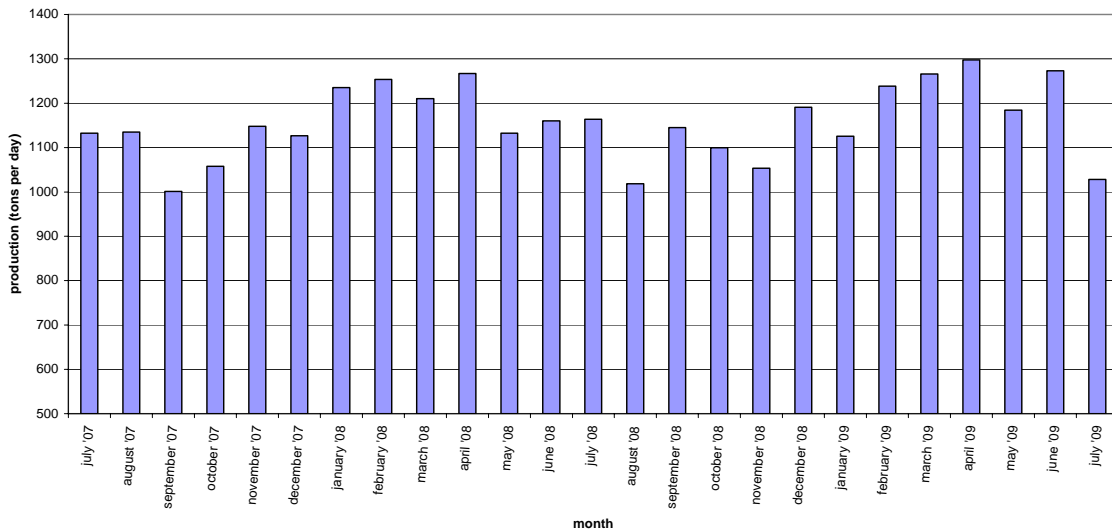
In July, biosolids hauling averaged 1028 wet tons per day. The graph below shows the hauling by contractor for the month of July. The second graph shows average tons recycled per day for the last 24 months. The average solids percentage was 29.06%, and average lime dose was 21.6%.

In July WASA again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In July a total of 812 tons went to compost production. Storage totals as of the end of June (this data lags a month) include 6300 tons in Cumberland County, VA and 8000 tons in Cedarville Lagoon.

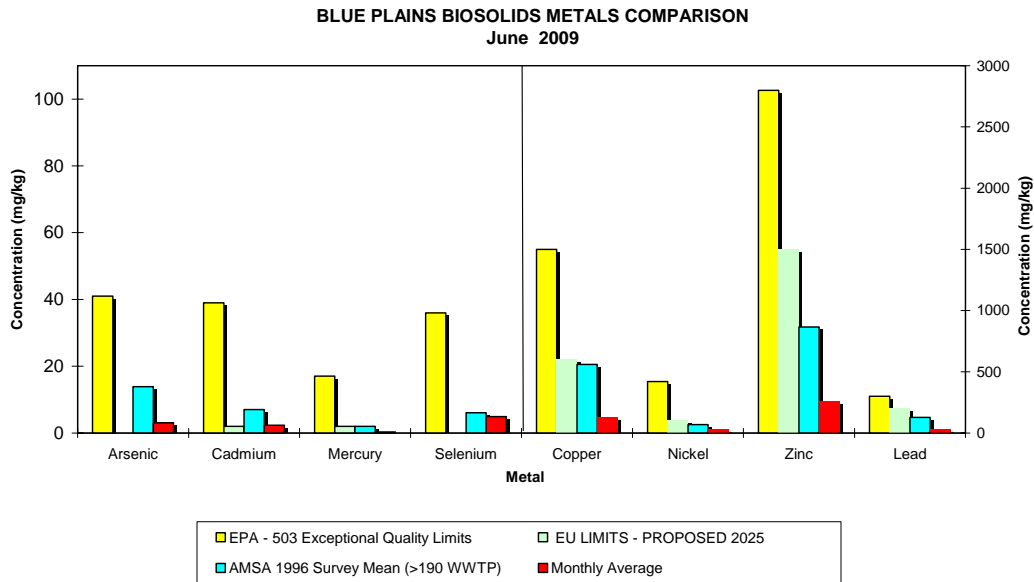
**Average Daily Hauling by Contractor for July, 2009**



**Average Daily Biosolids Production**



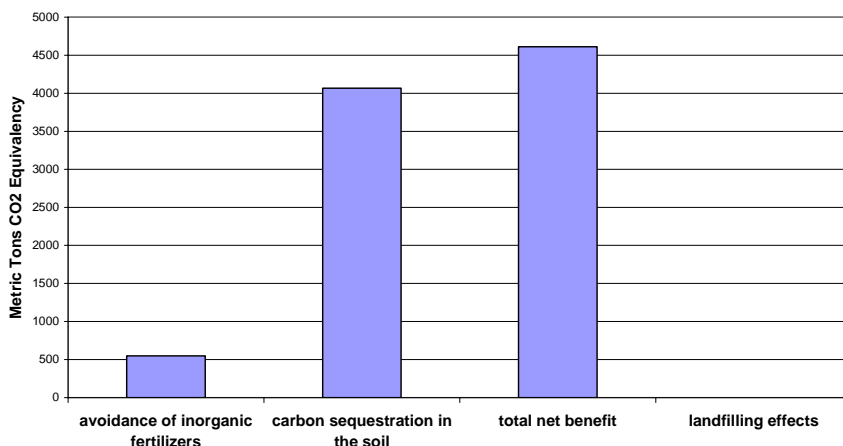
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of June 2009. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European Union (EU) limits. The EU limits are considerably more conservative than the USEAP limits, and Blue Plains biosolids metals content is lower than the EU standards as well.



### Environmental Benefits

One truck of biosolids went to landfill in June (23.44 tons). The graph below 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 4612 metric tons CO<sub>2</sub> equivalent avoided emissions. The graph shows the benefit (carbon credit) of the sequestration, the energy savings due to avoiding conventional fertilizer use, and the total of the two. This is equivalent to taking 10,460,842 car miles off the road in the month of June (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate).

**DCWASA Biosolids Recycling Program  
Greenhouse Gas Balance Benefits  
June 2009 Hauling Totals**



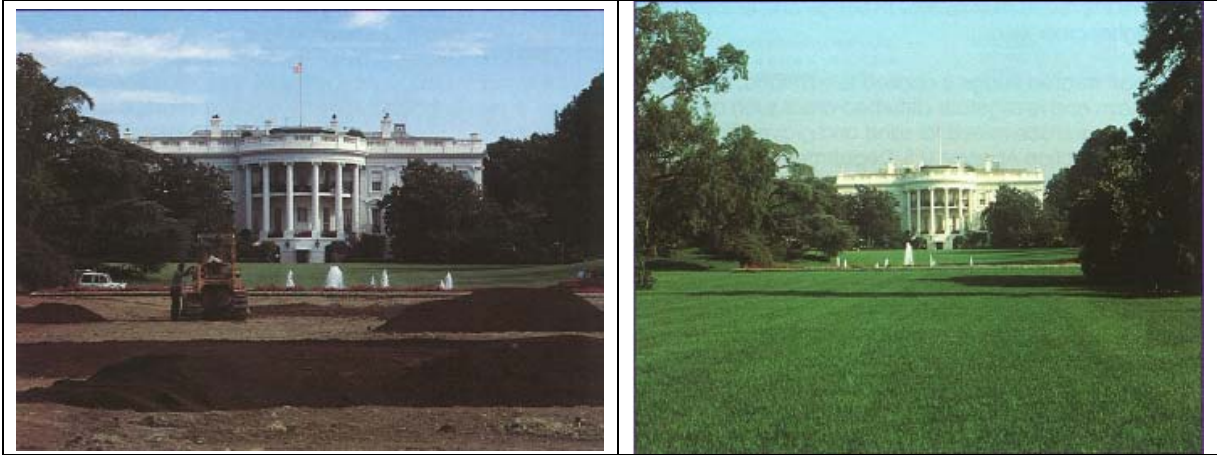
## HIGHLIGHTS

This past month staff planted a demonstration vegetable garden at Blue Plains using biosolids compost produced for DCWASA at the McGill Composting Facility in Waverly, VA under the Urban Service Systems biosolids hauling contract. This garden will produce greens, tomatoes, peppers, corn, herbs, and other vegetables to be used (consumed) at a compost use demonstration meeting later in the summer. This practice is widely used and accepted in other cities in the country, and DCWASA staff plans to demonstrate that this product can be used in the District for the purposes of gardening, tree planting, green roofs, etc. The product helps sequester carbon, reduces runoff, and greens urban areas. DCWASA produces approximately 50 tons per day of compost, with the potential to produce 4 times this amount.



This past month, a story emerged on the internet and in two publications regarding the White House vegetable garden. A soil test revealed lead levels of 93 ppm in the garden, which is above background levels (up to 50 ppm), and certain factions opposed to the use of biosolids have reported that this is due to the fact that the White House lawn has been treated with biosolids compost several times in the past two decades. In the late 80's, landscapers applied ComPro (Blue Plains biosolids compost) to the south lawn (see photos below). Again in 2004, the lawn received Baltimore's Orogro biosolids compost.

The US EPA lead action levels for urban soils are 400 ppm in children’s play areas and 1200 ppm in non-play areas. Several state extension offices recommend not growing vegetables if the soil is greater than 300 ppm lead. Lead in Blue Plains biosolids is consistently below 30 ppm. Several documents and articles refuting these claims are posted at various internet sites. One such rebuttal is posted on the Obama garden blog, <http://obamafoodorama.blogspot.com/>. The response includes quotes from academics and soils scientists insisting that the reported level is safe and “ridiculously low” for an urban setting. Any levels above background are likely from historic atmospheric deposition from leaded fuels. The historical compost applications would have likely lowered the lead levels.



### Map of Blue Plains Biosolids Applications and Agricultural \$'s for June 2009

