

July/August, 2010

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# Biosolids Division Monthly Report

Submitted by:

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Biosolids Division Manager

## District of Columbia Water and Sewer Authority

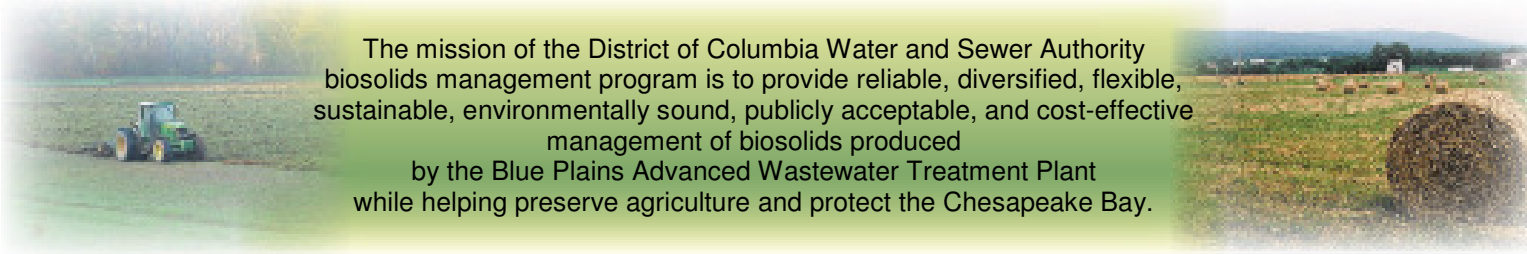
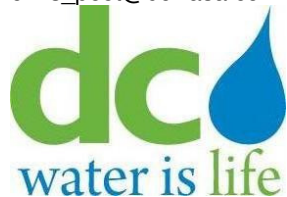
Biosolids Division

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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

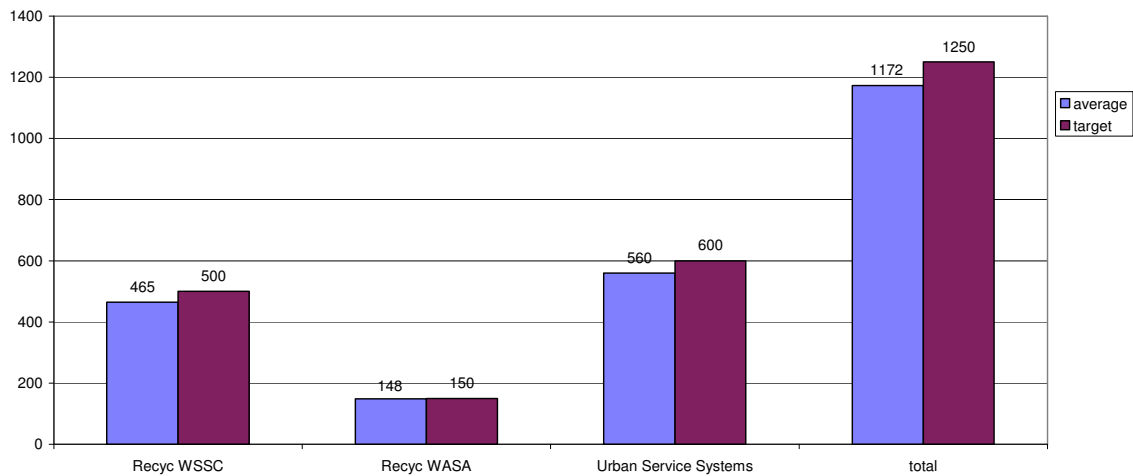
by the Blue Plains Advanced Wastewater Treatment Plant while helping preserve agriculture and protect the Chesapeake Bay.

## July/August 2010 Biosolids Division Report

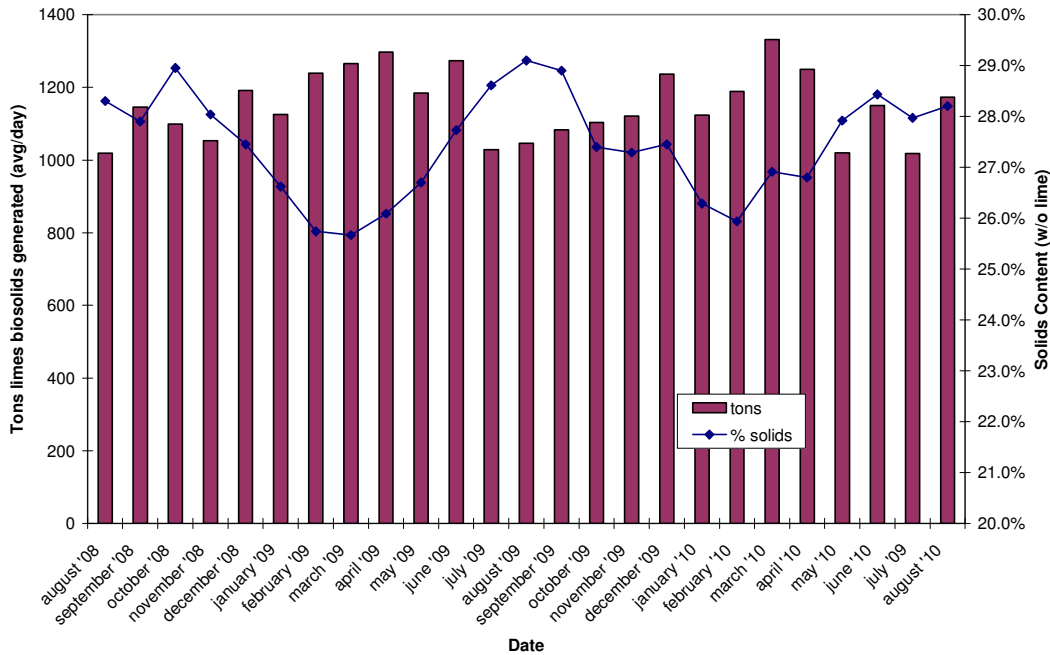
In August, biosolids hauling averaged 1172 wet tons per day. The graph below shows the hauling by contractor for the month of August. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for August was 28.2%, and average lime dose was 18.8%.

In August WASA again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In August a total of 778 tons went to compost production. Storage totals as of the end of August include 2184 tons in Cumberland County, VA and no (0) tons in Cedarville Lagoon.

Average Daily Hauling by Contractor for August, 2010

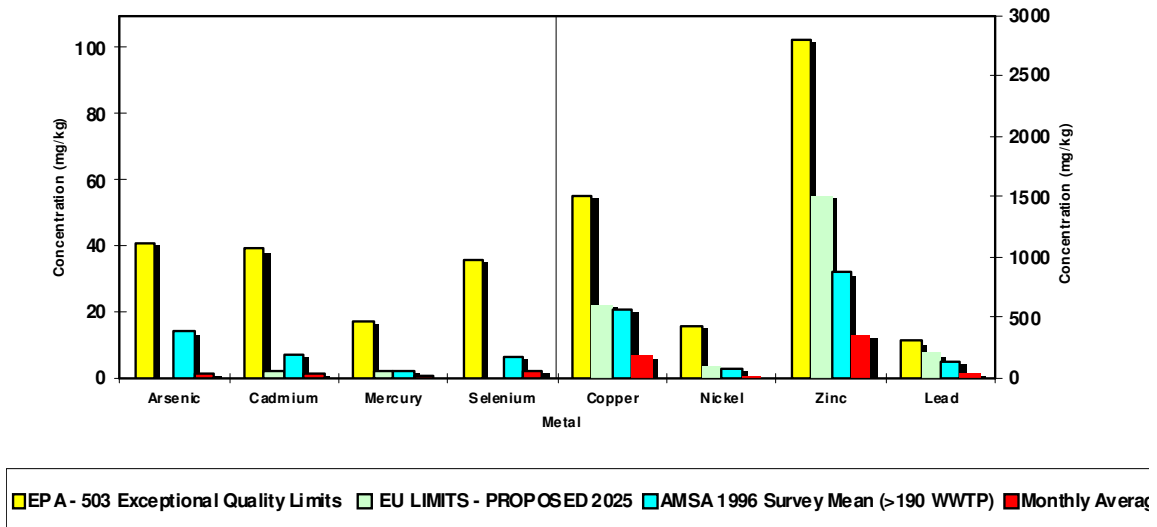


**Average Daily Biosolids Production and Solids Content**



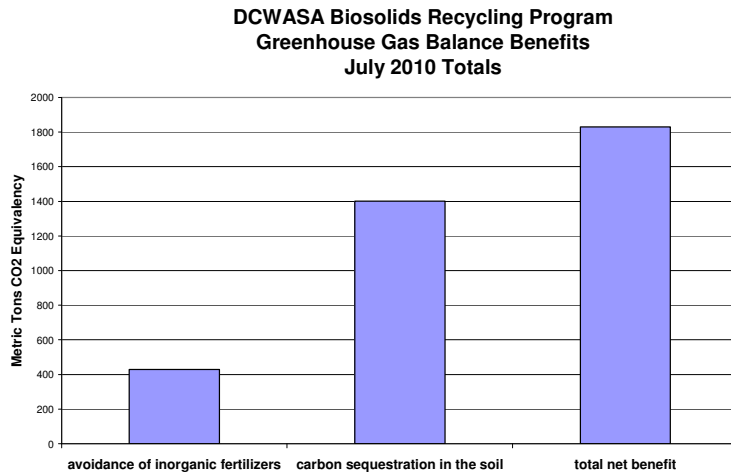
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of June 2010. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European Union (EU) limits. The EU limits are considerably more conservative than the USEPA limits, and Blue Plains biosolids metals content is lower than the EU standards as well.

**BLUE PLAINS BIOSOLIDS METALS COMPARISON  
June 2010**



**Environmental Benefits**

No biosolids went to landfills in July. No biosolids went to storage, while 7494 tons came out of storage in July. The tonnage coming directly from the plant equaled 29,840 tons of biosolids land applied in July. 755 tons went to composting. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1830 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 4,150,603 car miles off the road in the month of July (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2007 is 61,778 metric tons CO<sub>2</sub> equivalent.



## July Highlights

Representatives from Virginia Tech and The Virginia Agricultural Extension Office held a biosolids use forum on August 11<sup>th</sup> in Blackstone, VA. Attendees included generators, contractors, regulators, inspectors, and academics. Dr.'s Lee Daniels and Greg Evanylo of Va Tech gave a presentation entitled Utilization of biosolids for Disturbed Land Rehabilitation, which described much of their research in the area, some of which is sponsored by DC Water. Their work shows that biosolids use can help restore the environmental scars sometimes left behind at mine sites. Provided here is a link describing some of their findings. <http://www.cses.vt.edu/revegetation/>

Representatives from the DC Water biosolids team attended the 2010 Virginia Agricultural Expo hosted by the Windsor Farm in Montross, Westmorland County, Virginia. We displayed the biosolids recycling booth, with information for farmers concerning how to get involved in the biosolids recycling program. Despite the heat, attendance was high, as was interest in the DC Water program. Much of the topic of discussion of the day revolved around the drought experienced this summer. Biosolids, due to natural secretion of essential plant hormones (auxins and cytokinins) from the microbes as they break down organic nitrogen into plant-available inorganic nitrogen, can help farmers get through drought conditions.

Staff attended a Water Environment Research Foundation (WERF) research project update meeting in Richmond this past month. DC Water is involved on the research team for the project designed to examine ways of better communicating the level of risks involved with the recycling of biosolids in agricultural settings. We often see citizens in receiving communities with elevated concerns prior to an application. These concerns are often out of line with the actual risk, and this project seeks to better understand people's concerns and will design an outreach plan to address these concerns. The

team worked together to survey neighbors of farms where biosolids had been recently spread. Results indicate a wide range of understanding regarding what we do, the regulations involved, the precautions taken, etc. The final report is due for completion in the next 6 months.

### Map of Blue Plains Biosolids Applications and Agricultural \$'s for July 2010

