

November/December, 2010

Biosolids Division Monthly Report

Submitted by:

Chris Peot, P.E.

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



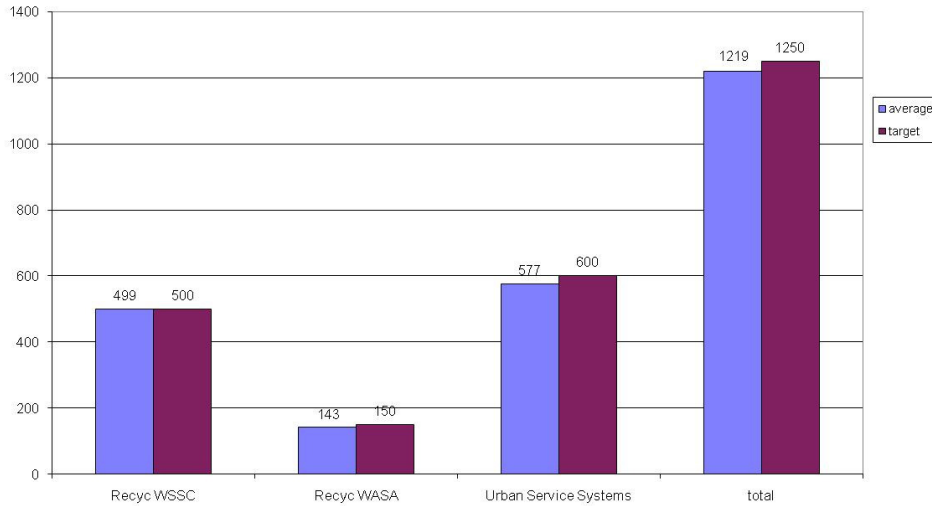
The mission of the District of Columbia Water and Sewer Authority

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.

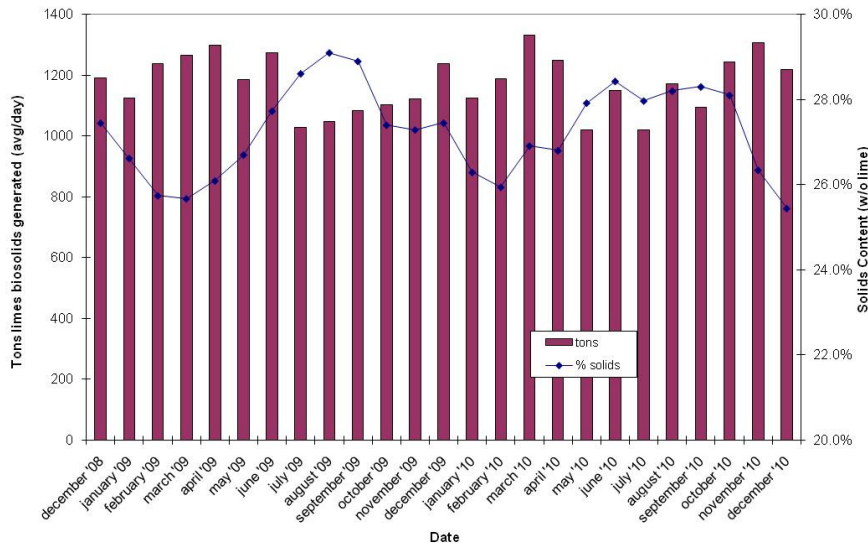
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In December, biosolids hauling averaged 1219 wet tons per day. The graph below shows the hauling by contractor for the month of December. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for December was 25.4%, and average lime dose was 17.2%. In December DC Water again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In December a total of 522.2 tons went to compost production.

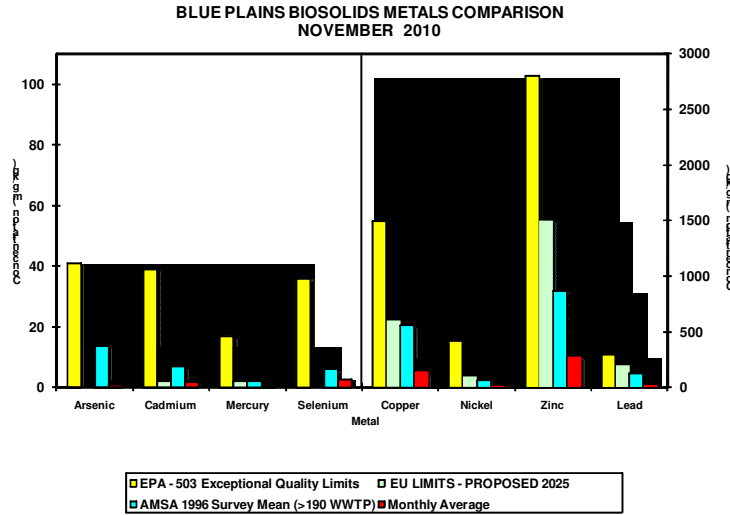
Average Daily Hauling by Contractor for December, 2010



Average Daily Biosolids Production and Solids Content



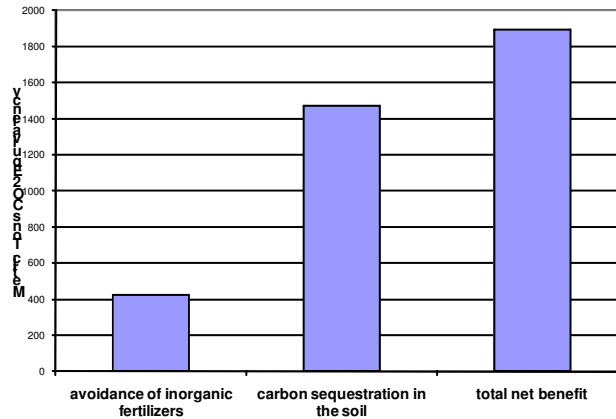
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of November 2010. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and the European Union (EU)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



Environmental Benefits

Zero tons of biosolids went to landfills in November. The tonnage land applied coming directly from the plant and from storage facilities equaled 33,532 tons of biosolids land applied in November. 601 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 1896 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 4,163,707 car miles off the road in the month of November (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2007 is 69,033 metric tons CO₂ equivalent.

**DCWASA Biosolids Recycling Program
Greenhouse Gas Balance Benefits
November 2010 Totals**



December Highlights

On December 19th and 20th, staff participated as a member of a Water Environment Research Foundation (WERF) research project sub-committee in a two day meeting at Bucknell University to discuss findings and progress on a project entitled "Use of Nanomaterials for Biosolids Odor Reduction and Improved Dewatering". Researchers are studying how nanomaterials (aluminum and iron, to name two) bind proteins. Doing so reduces the food available to microbes responsible for odor production, and also reduces the demand for polymer during the dewatering process. The project is scheduled to be completed in early 2011, at which time a final report will be available.

Staff attended the annual Virginia Biosolids Council (VBC) meeting on December 9th in Richmond. The VBC is a biosolids generator and land applier organization whose mission it is to ensure accurate info is disseminated to regulators, decision makers, the press, and the public regarding biosolids recycling. The VBC publishes the Biosolids News quarterly, a document containing news and information on regulations, research, technology, risks, etc. Attendees learned about updates to the website (www.virginiabiosolids.com), government regulatory and legislative activities, outreach, press interaction, etc. In addition, we heard a presentation from researchers studying how to communicate risks to the receiving communities, a project that VBC participated in by organizing facilitating and helping to line up survey participants. Neil Zahradka, director of the DEQ Biosolids Program, attended with his staff and presented information on inspections and regulations.

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

