January/February, 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



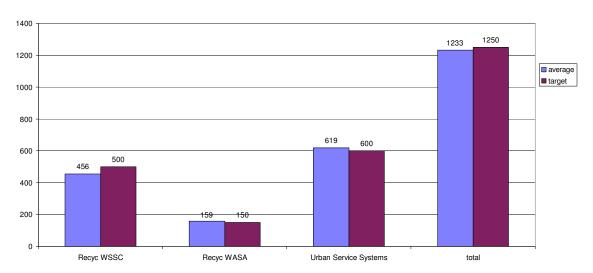
The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant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

January/February 2010 Biosolids Division Report

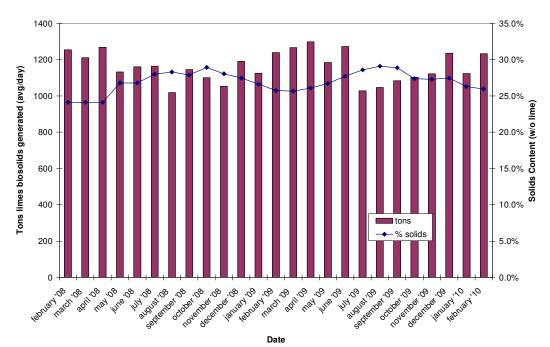
In February, biosolids hauling averaged 1233 wet tons per day. The graph below shows the hauling by contractor for the month of February. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for February was 25.94%, and average lime dose was 15.58%.

In February WASA again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In February a total of 1429.6 tons went to compost production. Storage totals as of the end of February include 19,559.28 tons in Cumberland County, VA and 29,695.28 tons in Cedarville Lagoon.

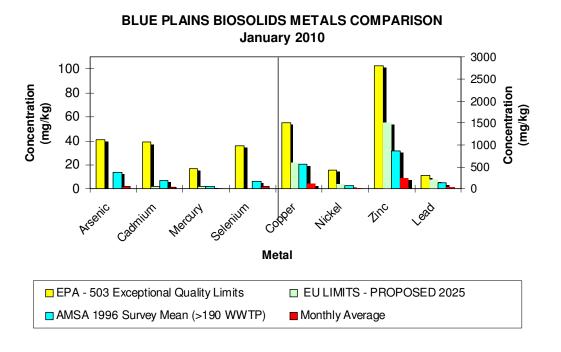
Average Daily Hauling by Contractor for February, 2010



Average Daily Biosolids Production and Solids Content



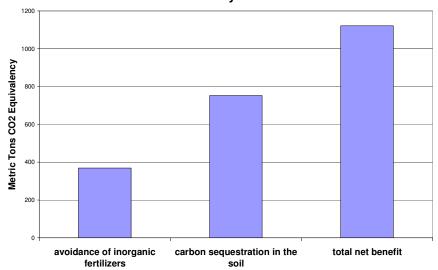
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of January 2010. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European 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.



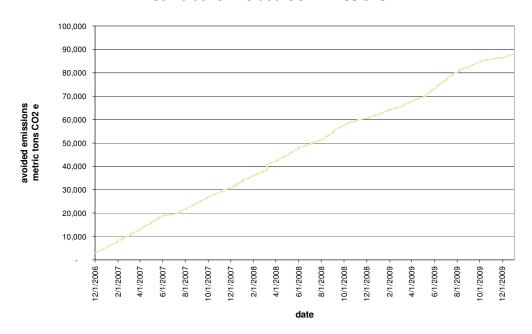
Environmental Benefits

Due to inclement weather, 2064 tons of biosolids went to landfills in January. All additional material that could not be placed in the fields due to inclement weather went to storage – 12,216.73 tons went into storage, while 13,275 tons came out of storage in January. 32,956 tons of biosolids were land applied, and 525 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 1810 metric tons metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 4,104,911 car miles off the road in the month of January (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).

DCWASA Biosolids Recycling Program Greenhouse Gas Balance Benefits January 2010 Totals



Cumulative Avoided CO2 Emissions



February Highlights

February weather (snow) led us to test the limits of capacity for the Blue Plains biosolids reuse program. Heavy snow and high winds limited or eliminated our ability to move trucks off-plant and to fields, storage, or landfills. For a few days, landfills were in accessible, and for a few more days, they were unable to take the biosolids because there was insufficient trash (due to inability to collect in urban areas) to reach the appropriate trash-to-biosolids ration. DWT staff did not have to shut down solids processing at all during the storm or the month. Our contractors used storage until full, and then as needed and as it became available, took material to the landfills. On the one day that it was unsafe or impossible for drivers to make it to the plant and to the offsite reuse areas, staff and contractors stored material onsite at Blue Plains. Our

contractors informed DCWASA staff that they now hold agreements with 6 landfills in VA for acceptance for biosolids. In addition, all six landfills are gas recovery and energy producing entities. Therefore, staff will re-design the greenhouse gas spreadsheets used to calculate the benefit from our biosolids reuse program. The current spreadsheet assumes no gas recovery for energy production, and therefore shows the negative impact of fugitive methane and CO2 emissions. Staff will revise the spreadsheet to reflect this new landfill reality.

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

