April, 2009

Biosolids Division Monthly Report

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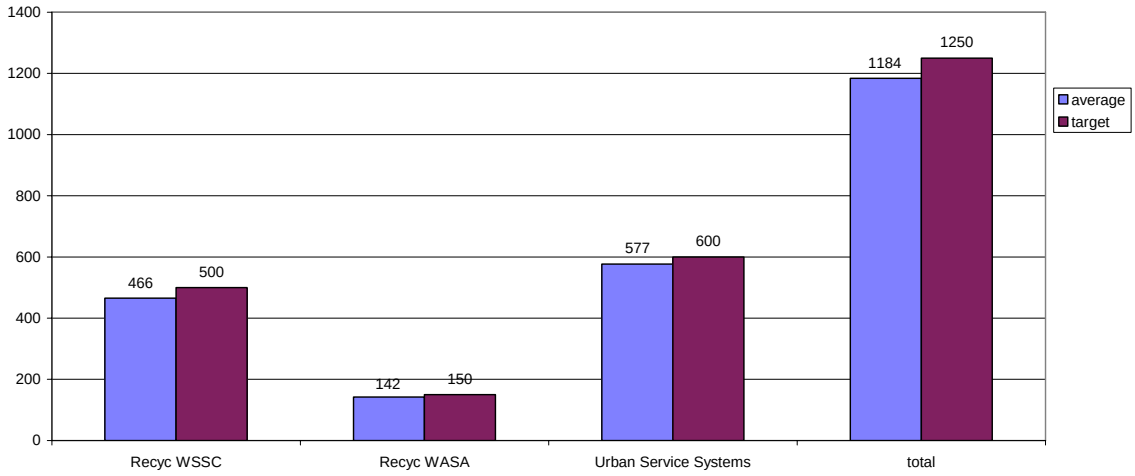
The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant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

April/May 2009 Biosolids Division Report

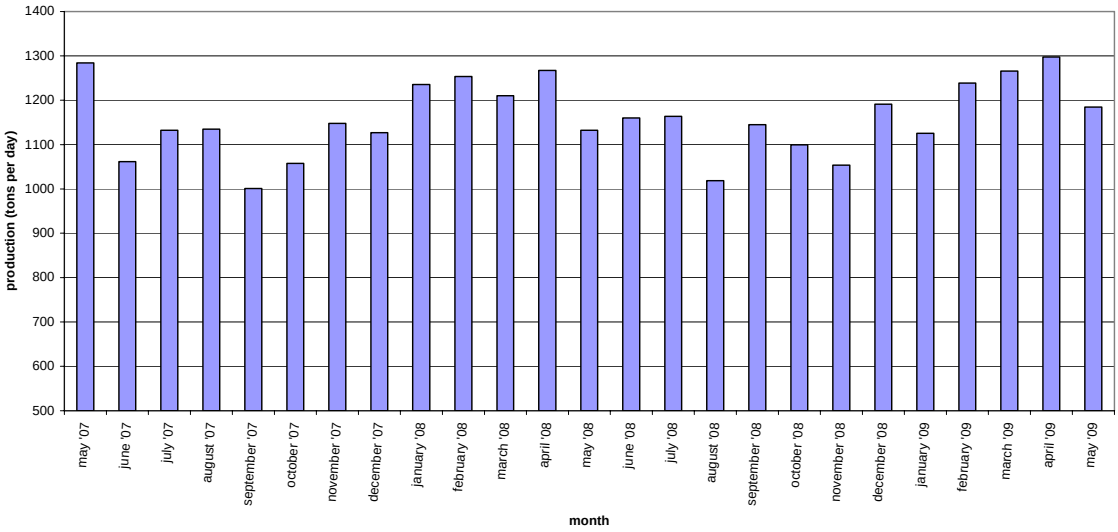
In May, biosolids hauling averaged 1184 wet tons per day. The graph below shows the hauling by contractor for the month of May. The second graph shows average tons recycled per day for the last 24 months. The average solids percentage was 27.73%, and average lime dose was 15.0%.

In May WASA again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In May a total of 1,360 tons went to compost production. Storage totals as of the end of May include 18,348 tons in Cumberland County, VA and 1081 tons in Cedarville Lagoon.

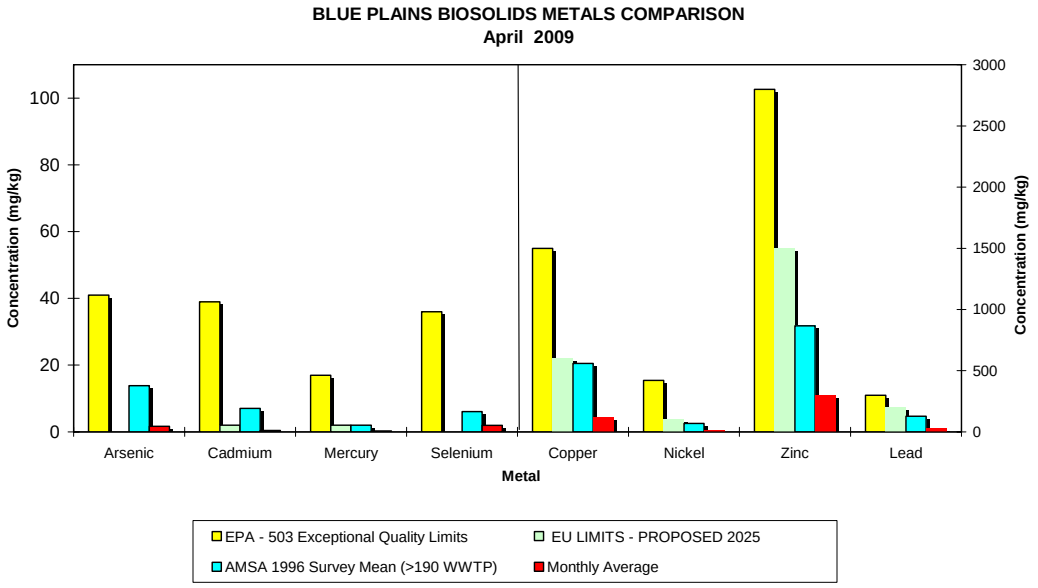
Average Daily Hauling by Contractor for May, 2009



Average Daily Biosolids Production

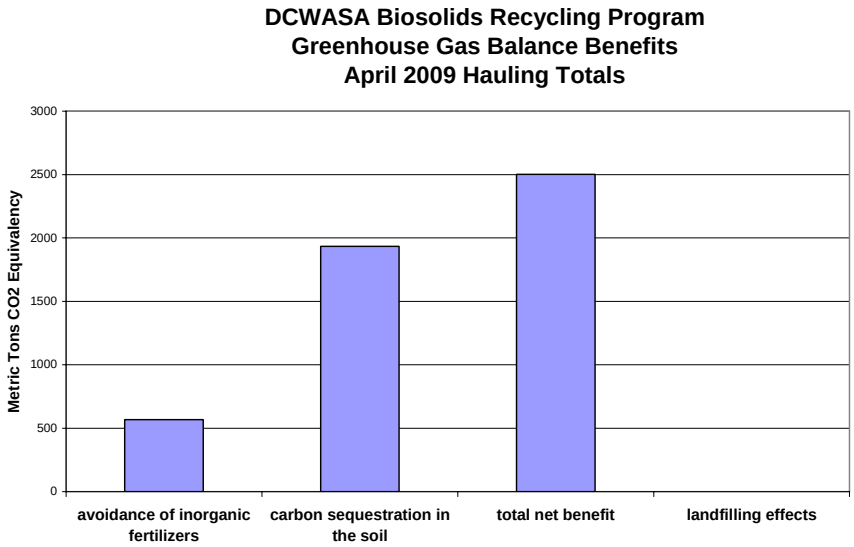


The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of April 2009. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European Union (EU) limits.



Environmental Benefits

No tonnage went to landfills in April. 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 2501 metric tons CO_2 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 5,673,331 car miles off the road in the month of April (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).



HIGHLIGHTS

Staff and invited guests attended a presentation by U of Maryland and USDA researchers concerning progress on a DCWASA sponsored project to examine the fate and transport of constituents of concern in the wastewater treatment process and in land applied biosolids. The DCWASA sponsored work looks at two families of compounds – antimicrobials (triclosan and triclocarban), and flame retardants (polybrominated diphenyl ethers (PBDE's)). Work to date includes sampling at the treatment plant, on farm fields, and at a demonstration application at the USDA Beltsville farm. Researchers will finish the first phase in the next year and will publish results in technical journals over the same period.

Staff presented a summary of progress on the DCWASA Biosolids Management Plan improvements at the Chesapeake Water Environment Association (CWEA) annual spring meeting in Baltimore. The presentation summarized the status of the digester project, which will convert organic matter to methane (allowing production of 10 MW of renewable energy) and reduce biosolids volume in half. Through the use of an innovative thermal hydrolysis process (high heat and increased pressure) as a pre-digestion stage, the remaining residual biosolids will be a high quality Class A product. The project is scheduled for completion in 2014.

Map of Blue Plains Biosolids Applications and Agricultural $'s for April 2009