February/March, 2010

Biosolids Division Monthly Report

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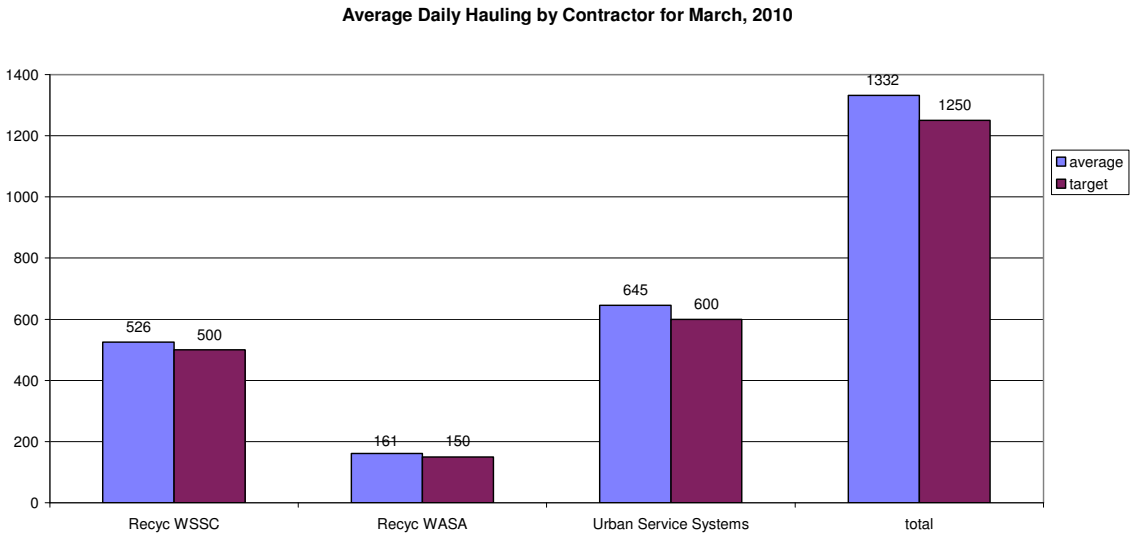
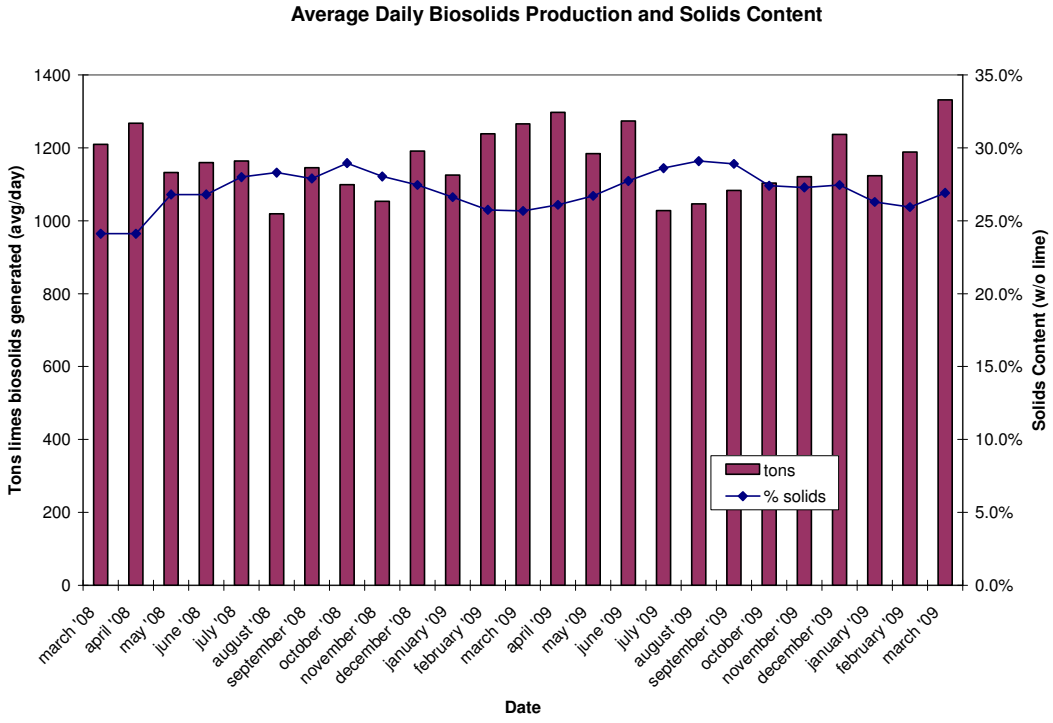
The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant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

February/March 2010 Biosolids Division Report

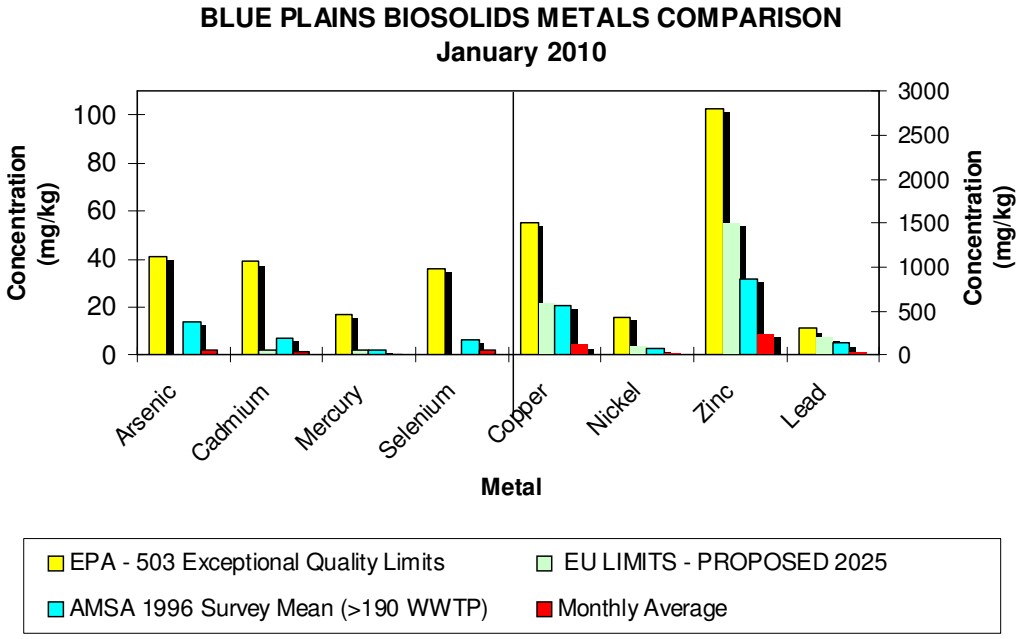
In March, biosolids hauling averaged 1332 wet tons per day. The graph below shows the hauling by contractor for the month of March. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for March was 26.9%, and average lime dose was 18.2%.

In March WASA again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In March a total of 1430 tons went to compost production. Storage totals as of the end of March include 22,175 tons in Cumberland County, VA and 30,337 tons in Cedarville Lagoon.





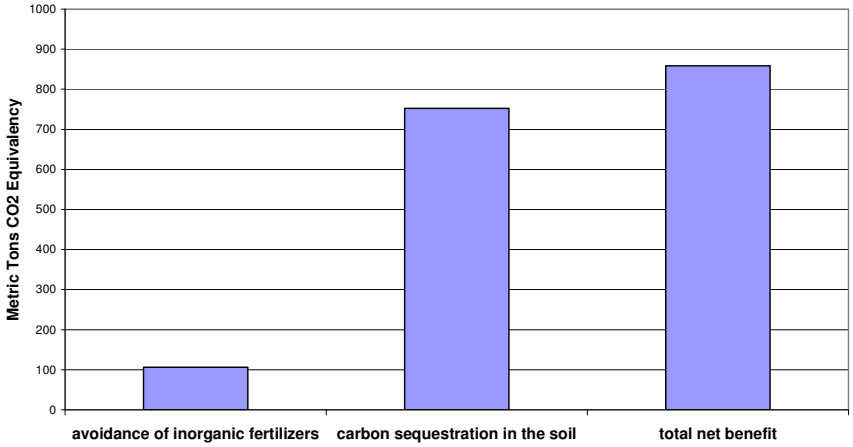
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of January 2010. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European 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, 17,981.91 tons of biosolids went to landfills in February. All additional material that could not be placed in the fields due to inclement weather went to storage – 13852.12 tons went into storage, while 1,968 tons came out of storage in February. 2880 tons of biosolids were land applied, and 1430 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 858 metric tons metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 239,530 car miles off the road in the month of February (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).

DCWASA Biosolids Recycling Program
Greenhouse Gas Balance Benefits
February 2010 Totals



March Highlights

During the month of March, staff completed preparation for a research summit to discuss findings and ongoing research results of several DCWASA funded projects concerning trace organic compounds found in biosolids. The meeting is scheduled for all day on Thursday, April 16th. This is an area of concern for the public, and the DCWASA research is designed to look at a few of these persistent compounds that come to Blue plains through the sewer system. The studies look at anti-microbial and flame retardants (among other things) to determine concentration levels and to study fate and transport dynamics from land applied biosolids. In addition, researchers will present findings on a research project designed to examine drought resistance from crops grown in biosolids as well as a hybrid poplar plantation project. An agenda for the meeting is shown below.

Blue Plains Biosolids Microconstituents Research Meeting
April 15th / 9:30 am / DCWASA – 2nd Floor CMF Building, Conf Rm. A,

Symposium to disseminate current knowledge and share ideas for collaboration on current biosolids research projects and future proposals sponsored by DC-WASA, Blue Plains Users and other interested regional WWTPs.

Morning Session

1) Welcome and Introductions (9:30 – 9:40am)	Mark Ramirez, DC-WASA Karl Berger, MWCOG Chris Peot, DC-WASA
2) Pretreatment Program (9:40 – 9:50am)	Elaine Wilson, DC-WASA
3) Current Research on Microconstituents	
Wastewater treatment plant process effects on Triclosan (TCS) and Triclocarban (TCC) (9:50 – 10:15am)	Nuria Lozano, University of Maryland Alba Torrents, University of Maryland
TCS and TCC fate and transport upon biosolids land application (10:15 – 10:40am)	Cliff Rice, USDA Nuria Lozano, University of Maryland

…….. Break (10:40 – 10:50 am) ……

Poly- and Per-fluorinated alkyl compounds persistence and fate (10:50– 11:15am)	Jinxia Liu, Chesapeake Biological Laboratory University of Maryland
Hormones: Relative Contribution from Biosolids and Chicken Manure (11:15 – 11:35 am)	Christine Bevacqua, University of Maryland Cliff Rice, USDA
PBDE fate and transport upon application (11:35 – 12:00noon)	Laura McConnell, USDA Natasha Andrede, University of Maryland

…….. Lunch (12:00 – 12:30) ……

3) Current Research on Other Topics

Hybrid Poplar/Trenching Analysis (12:30 – 12:50)	Greg Evanylo, VA Tech
Biostimulant and Carbon Footprint Study (12:50 – 1:10)	Greg Evanylo, VA Tech
4) Plans for WERF Targeted Research (1:10 – 1:30)	Alan Hais, WERF
5) Group Discussion of Research Collaboration (1:30 – 2:15)	All
6) Summary and Next Steps (2:15 – 2:30)	Mark Ramirez, Karl Berger

…….. Adjourn (2:30 p.m.) ……

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