September, 2009

Biosolids Division Monthly Report

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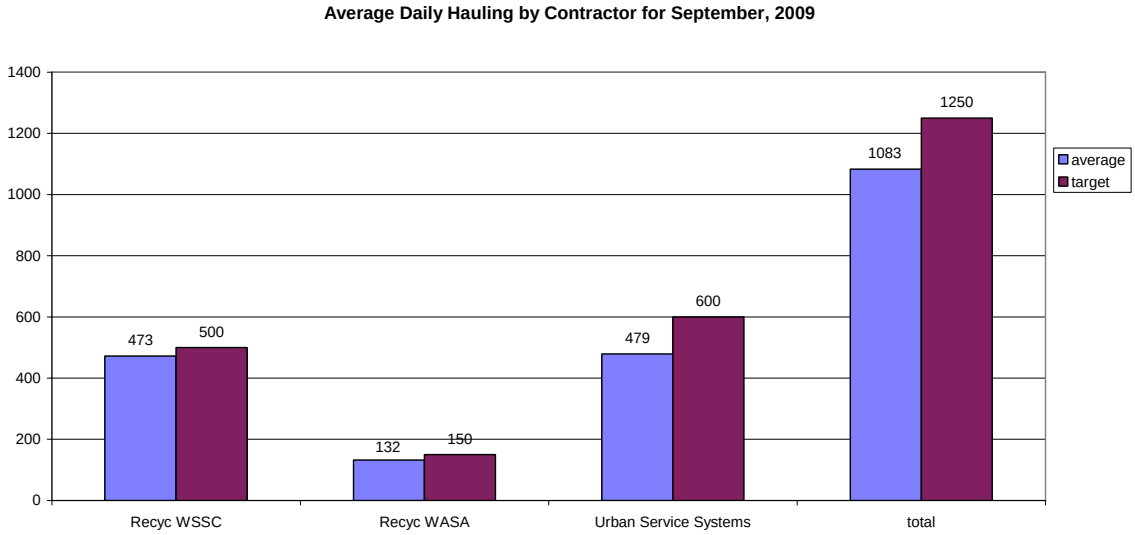
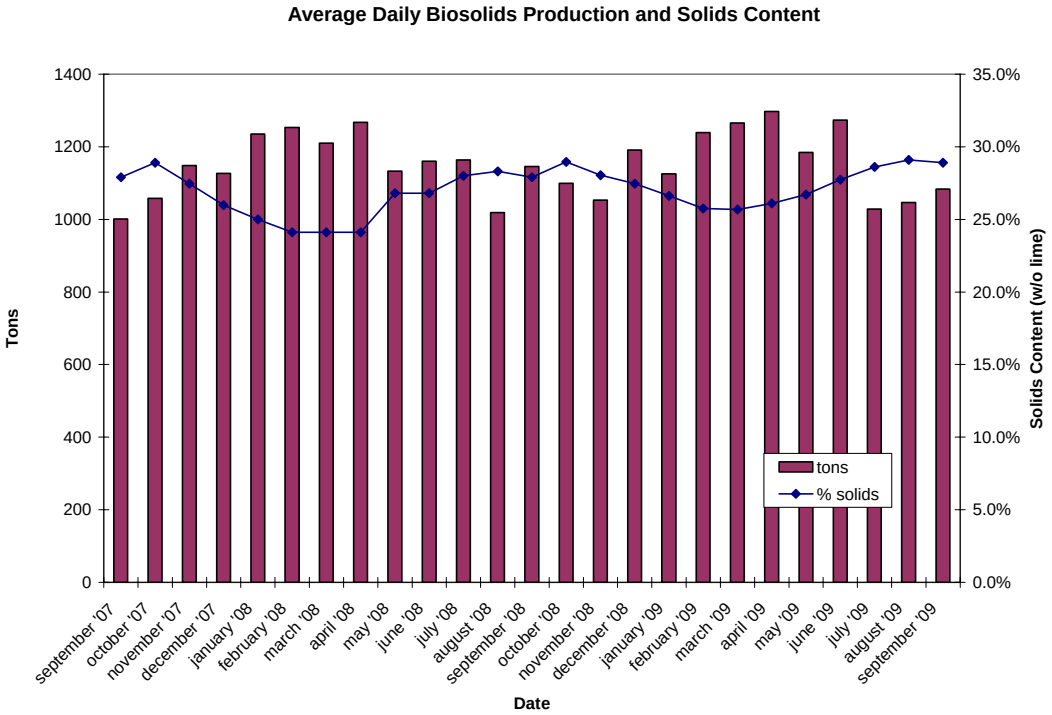
The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant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

August/September 2009 Biosolids Division Report

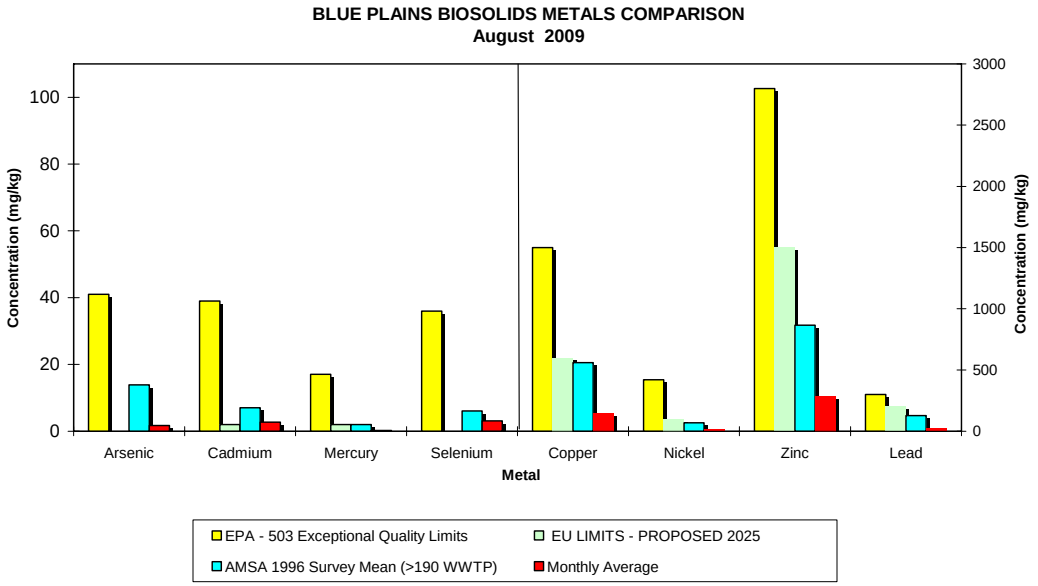
In September, biosolids hauling averaged 1083 wet tons per day. The graph below shows the hauling by contractor for the month of September. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for September was 28.9%, and average lime dose was 16.5%.

In September 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 1591 tons went to compost production. Storage totals as of the end of September include 1570 tons in Cumberland County, VA and 6997 tons in Cedarville Lagoon.



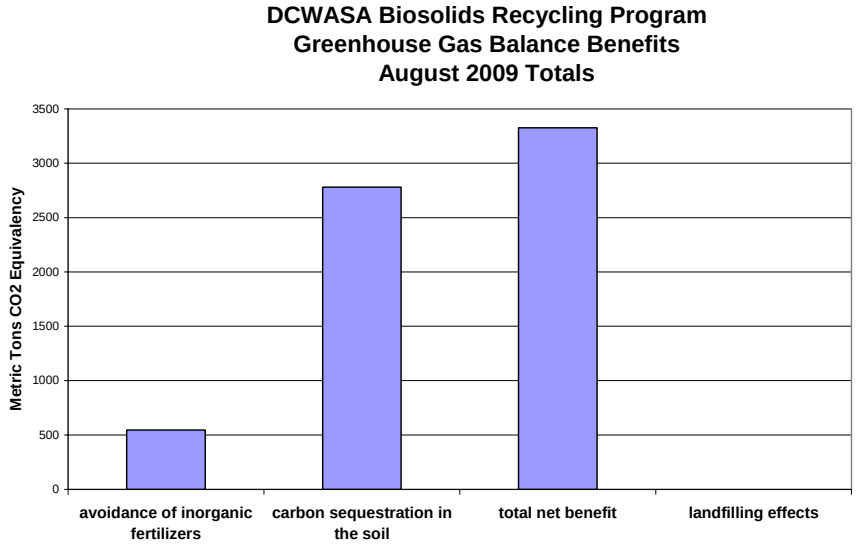


The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of August 2009. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European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

No biosolids went to landfill in August. 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 3326 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 7,543,348 car miles off the road in the month of August (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).



HIGHLIGHTS

Staff received a final report for the internal audit conducted in August on the DCWASA Biosolids Program. This internal audit examined the program and the associated Environmental Management System (EMS). DCWASA requested the internal audit in preparation for the 3rd party audit, which is scheduled for the last week of October. This upcoming audit is a reverification audit, conducted in the 5th year of the EMS program after an initial verification audit and 4 annual interim audits. The internal audit report is available upon request. The auditor found two minor non-conformances, listed below.

Minor Nonconformance IA/09-01 Contractor Control: While DCWASA expectations regarding contractor involvement in the BMP are discussed at monthly BWG meetings, some contractors have not accepted and integrated these expectations into their operations, and DCWASA has not included contractor processes and procedures into their BMP manual or associated documents. In addition, it is not clear if DCWASA is obtaining the records, particularly training, that are required of the contractor prior to employees beginning work.

Minor Nonconformance IA/09-02 Management Involvement
While the current process meets the letter and intent of the NBP Elements and DCWASA procedure, additional involvement by senior management, perhaps through an annual management review meeting, is needed to insure a management review system is in place.

This past month, staff continued an effort to train the biosolids contractors on issues surrounding the biosolids program, with a stop at the Culpeper, VA offices of Recyc Systems. This training includes review of Environmental Management System (EMS) principles, research efforts, safety and efficiency initiatives, and goals. The contractors were given literature, along with items for daily use that will remind them of the program goals – preserving agriculture and protecting the Chesapeake Bay. The attendees included field, management, and office personnel.

Staff hosted an Armenian delegation which came to DC to examine issues related to large scale recycling efforts. The League of Women Voters arranged for the delegation to visit Blue Plains for a tour and a presentation on the biosolids recycling program. The delegate group included public officials and municipal workers.

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