

March/April, 2010

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# Biosolids Division Monthly Report

Submitted by:

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Biosolids Division Manager

## District of Columbia Water and Sewer Authority

Biosolids Division

5000 Overlook Avenue SW

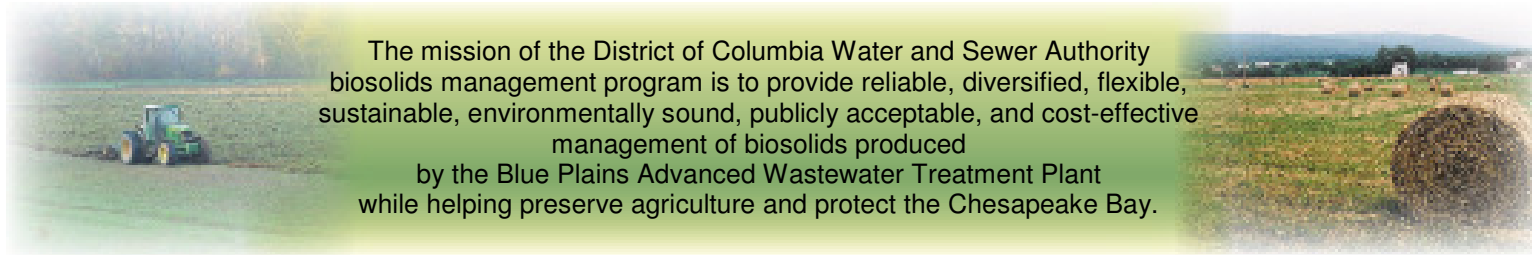
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The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced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

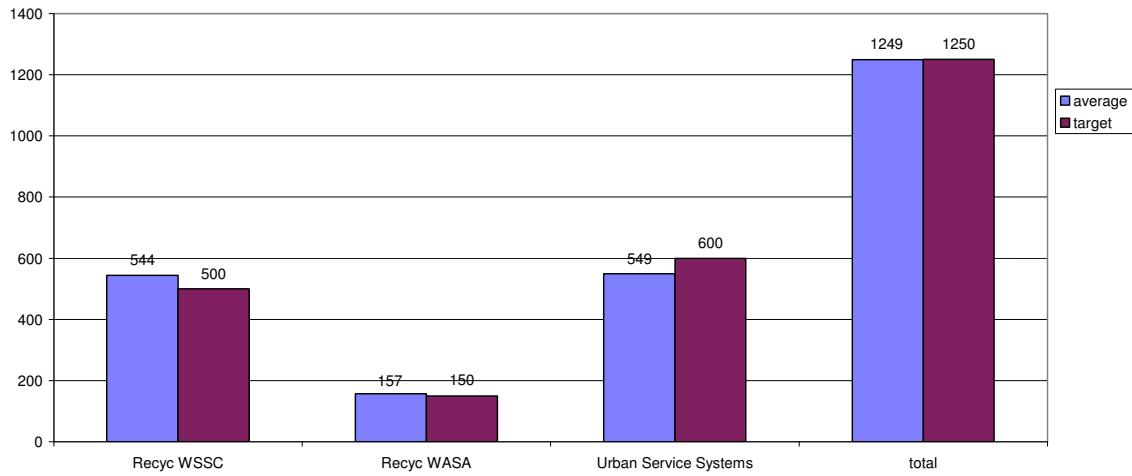


## March/April 2010 Biosolids Division Report

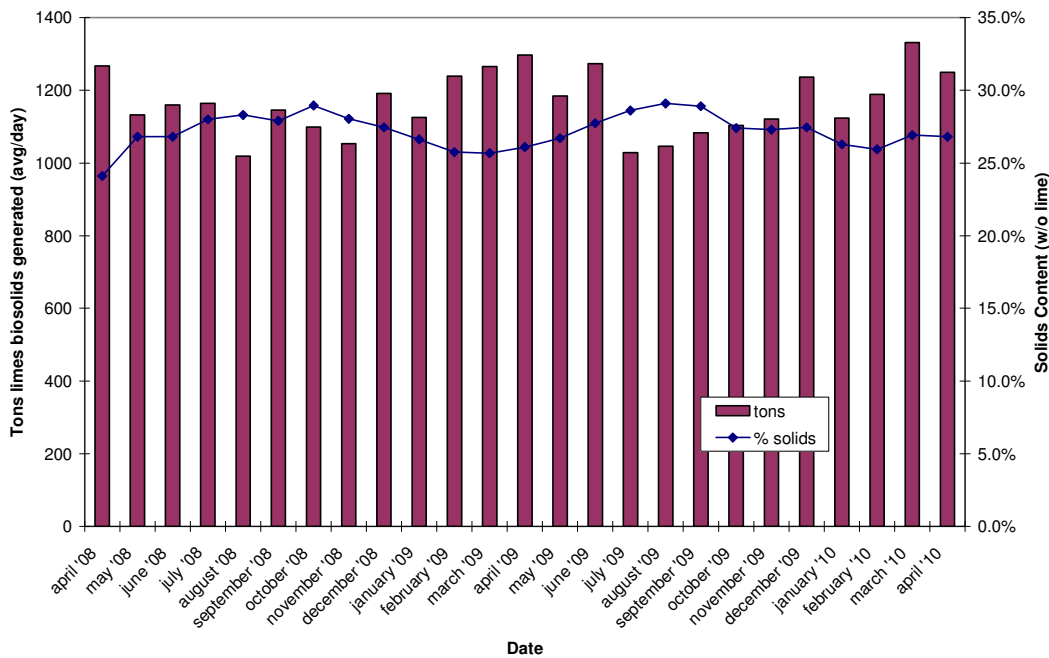
In April, biosolids hauling averaged 1249 wet tons per day. The graph below shows the hauling by contractor for the month of April. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for April was 26.75%, and average lime dose was 14.2%.

In April WASA again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In April a total of 1110 tons went to compost production. Storage totals as of the end of April include 6326 tons in Cumberland County, VA and 8610 tons in Cedarville Lagoon.

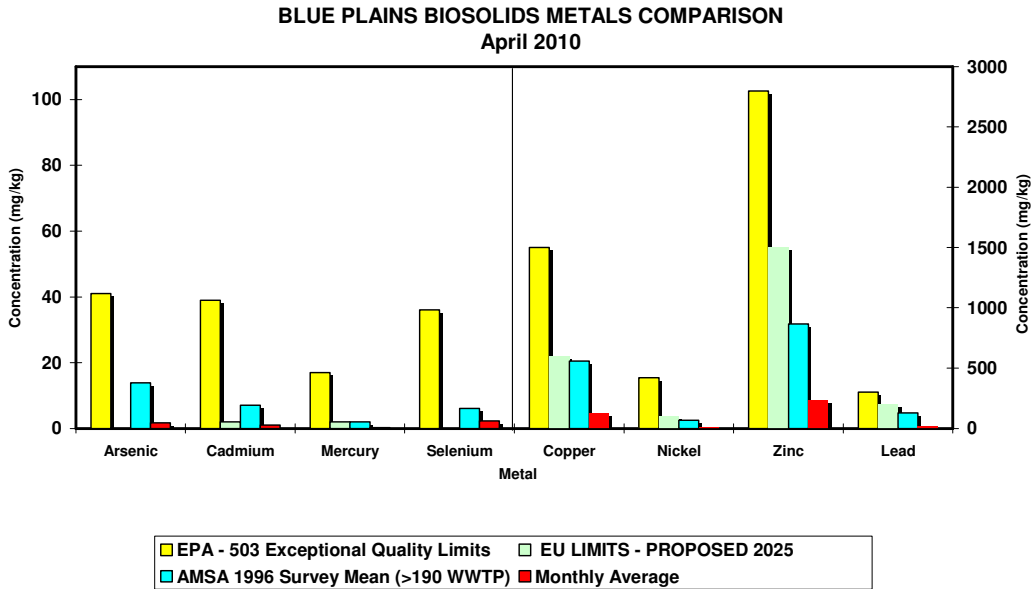
Average Daily Hauling by Contractor for April, 2010



Average Daily Biosolids Production and Solids Content



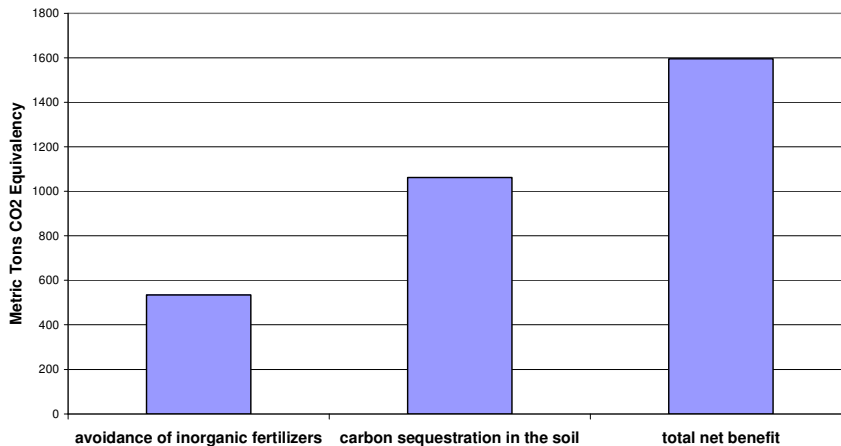
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of April 2010. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European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

2641 tons of biosolids went to landfills in March. All additional material that could not be placed in the fields due to inclement weather went to storage – 15,040 tons went into storage, while 21,069 tons came out of storage in March. 41,900 tons of biosolids were land applied, and 1,428 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 1596 metric tons metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 3,619,414 car miles off the road in the month of March (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate).

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



## April Highlights

Staff met with the Executive Director of the Green the Capitol Initiative to gather information about their goals regarding the Capitol carbon footprint. They have goals regarding this, and are interested in exploring a relationship with DCWASA regarding the green power generated by the digesters. The power produced at Blue Plains would provide credits enough to ensure that the Capitol building and several of the House and Senate offices were carbon neutral. Staff is considering many options for these future credits, including trading these credits on the open market, establishing a relationship with a commercial entity, and/or sending them to the Capitol. The DCWASA carbon footprint model is completed for the baseline years 2007 and 2008, and ready for auditing. Once audited, DCWASA can register the model with the Climate Registry, after which DCWASA can become an offset provider, track and document improvements, and claim credits for trading.

Staff has kicked off a study with Va Tech (John Fike, principle investigator) designed to look at the use of biosolids for fertilizing and maximizing yield at fields growing fuel crops. The economics of growing fuel crops is often unfavorable. For instance, soybeans crushed for oil only make it into the fuel market when there is surplus available, since the food market fetches a considerably higher price than the same oil for fuel. When a farmer receives biosolids, he saves fertilizer costs and increases his yield, so the economics are more favorable than without biosolids. The project will also look at switchgrass for cellulosic ethanol.

Staff participated in several calls and a meeting to discuss a WERF project DCWASA is involved in to look at methods of communicating the risks associated with biosolids recycling. The project is in its second phase.. The team conducted the first phase in Tulsa, Oklahoma, while the second phase will occur in Virginia. Team members will survey land owners, farmers, neighbors, and health officials in several key counties in an effort to learn if their concerns match our message. The work products will include a report on what we need to focus on in order to facilitate better communication and trust with the receiving communities.

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

