

# Biosolids Resource Recovery Monthly Report

### NUTRIENTS and CARBON RECYCLING

**FARMING**



Provides carbon and nutrients valued at \$300.00 per acre.

**SILVICULTURE**



Increases yield and improves sustainability.

**RECLAMATION**



Restoring lands to their natural state and providing wildlife habitats.

**URBAN RESTORATION**



Grow trees and reduce runoff.



**BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT: A RESOURCE RECOVERY FACILITY**

water • nutrients • carbon • energy



[dcwater.com/biosolids](http://dcwater.com/biosolids)

### GREEN ENERGY BIORENEWABLES

**POWER FROM THE PEOPLE**



**THERMAL HYDROLYSIS PROCESS (THP) AND DIGESTION FACILITY**



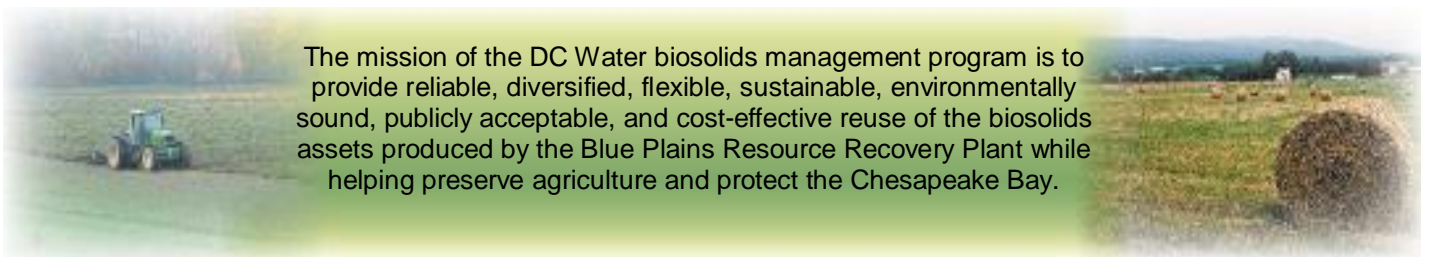
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

**GREEN BENEFITS:**

- Produce combined heat and power, generating 13 MW of electricity
- Save DC Water \$10 million annually cutting grid demand by a third (DC Water is the largest consumer of electricity in the District)
- Reduce carbon emissions by approximately 50,000 metric tons of CO<sub>2</sub>e per year.
- Reduce trucking by 1.7 million miles per year.
- Save \$10 million in biosolids trucking costs
- Produce Class A biosolids to grow trees, sequester carbon and reduce runoff.

## DC Water

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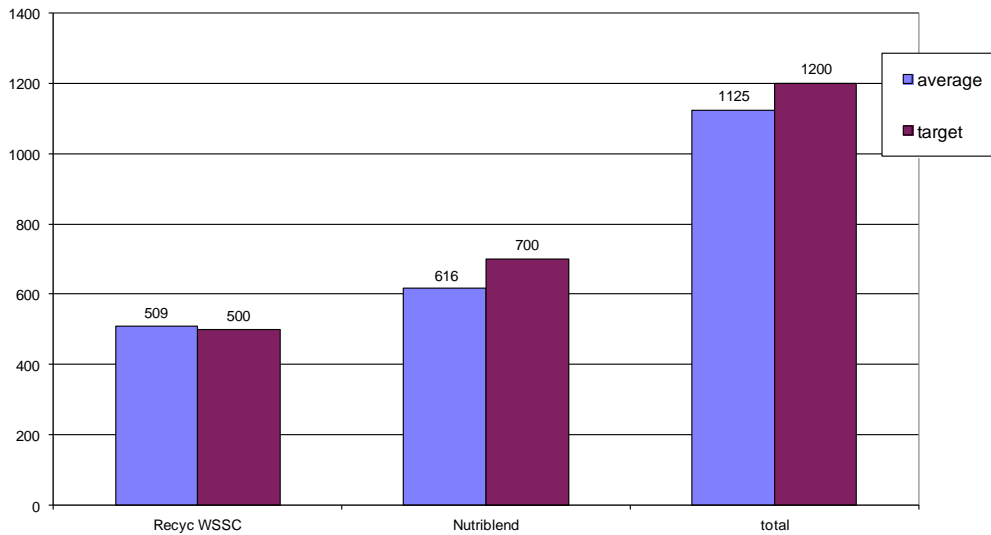


The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and protect the Chesapeake Bay.

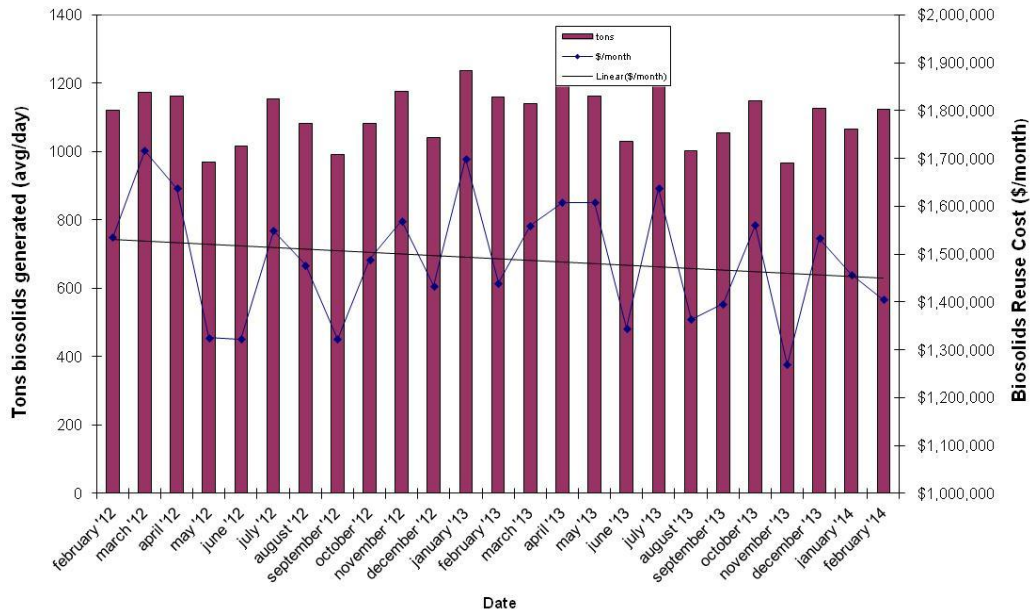
## February 2014 Biosolids Resource Recovery Report

In February, biosolids hauling averaged 1125 wet tons per day. The graph below shows the hauling by contractor for the month of February. Average % solids for the unlimed cake was 27.2%. Average lime dose for the month was 19.5%. 330 tons went to composting. At the end of February the Cumberland County storage pad had ~18,000 tons (~25,000 tons capacity), and the Cedarville lagoon had approximately ~16,000 tons (~30,000 tons capacity).

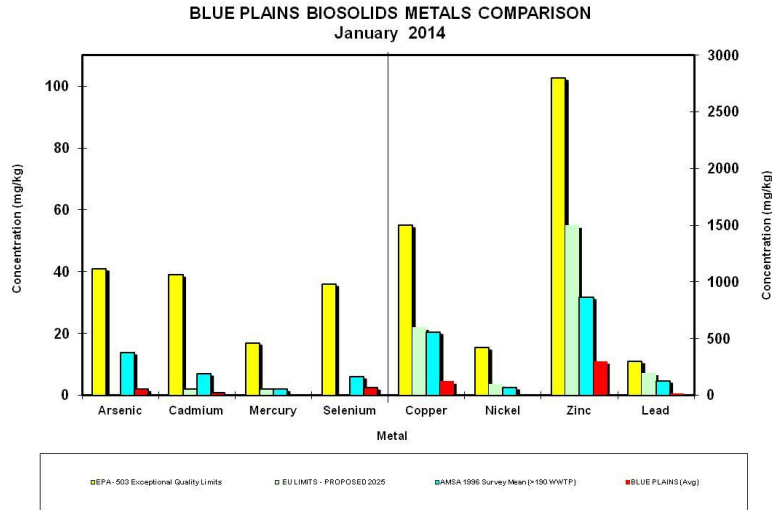
Average Daily Hauling by Contractor for February 2014



Average Daily Biosolids Production and Reuse Cost



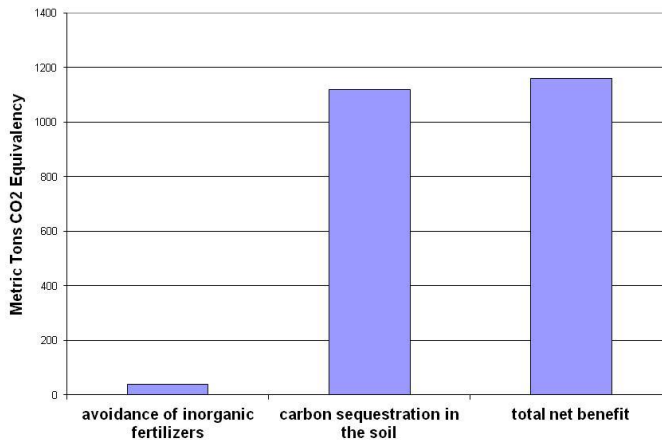
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of January 2014. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) limits. The EU limits are more conservative than the USEPA limits, and Blue Plains biosolids metals content is lower than the EU standards as well.



### Environmental Benefits

The quantity land applied in January coming directly from the plant and from storage facilities equaled 14,575 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1159 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 2,360,957 car miles off the road in the month of September (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2006 is 110,778 metric tons CO<sub>2</sub> equivalent.

**DCWater Biosolids Recycling Program  
Greenhouse Gas Balance Benefits  
January 2014 Totals**



## February Highlights

### Rooting DC Gardening Forum

Staff attended and manned the Resource Recovery booth this past month. Rooting DC is a free, all-day gardening forum that aims to provide education about urban food production and consumption, to cultivate health and preserve the environment. The program includes dozens of interactive workshops, cooking and food preservation demonstrations, and panel discussions focusing on youth gardening, nutrition, sustainable growing techniques, and healthy food access. The event also hosts 50+ green businesses and nonprofit from throughout the region at an information fair. Staff passed out biosolids compost and interacted with many community gardeners, kids, and others interested in using biosolids compost.



### Green Infrastructure meeting at DDOE

Staff held an informational meeting with representatives from DDOE, DPR, DDOT and MWCOG to discuss with sister agencies the use of Class A compost and blended soils in green infrastructure and restoration projects in the District. DDOE personnel had some questions and concerns with nutrient runoff and pollutants. Staff discussed a research project underway designed to examine the quality of water running off from sites amended with biosolids soil products. Staff solicited questions from DDOE and will revise the scope of work to ensure that all of DDOE's concerns are addressed.

# Map of Blue Plains Biosolids Applications and Agricultural \$'s for January 2014

