

March, 2015

# Biosolids Resource Recovery Monthly Report

**NUTRIENTS and CARBON RECYCLING**

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

**SILVICULTURE**  
  
Increase yield and improve sustainability.

**RECLAMATION**  
  
Restoring meets to their natural state and providing wildlife habitats.

**URBAN RESTORATION**  
  
Grow trees and reduce runoff.

**dc water is life** 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.

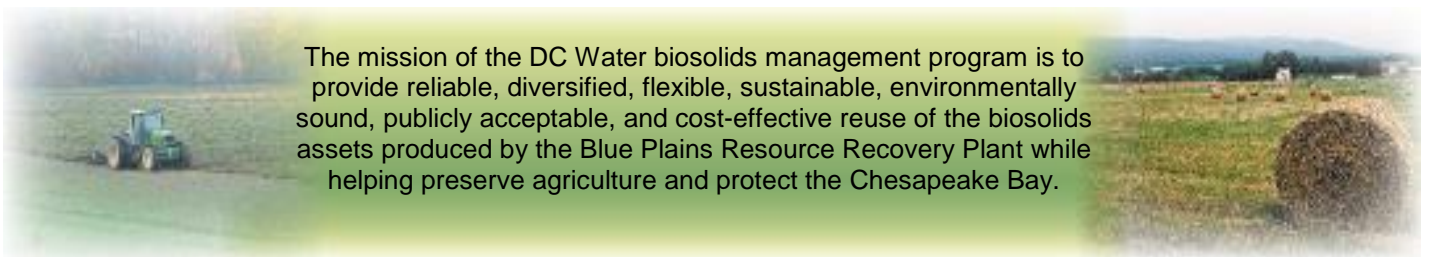
**GREEN BENEFITS:**

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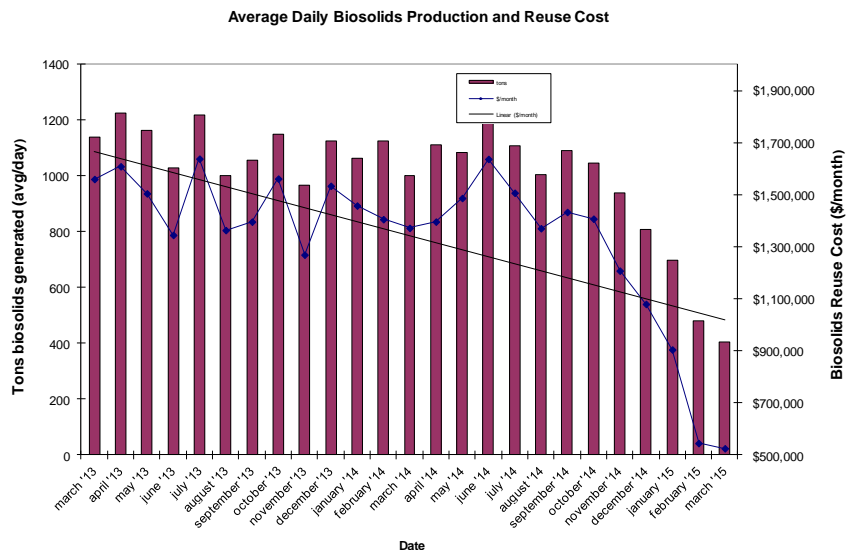
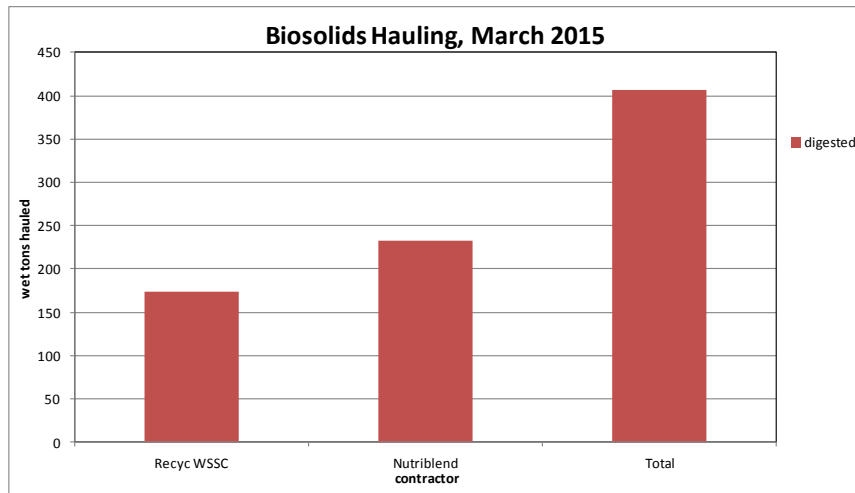
The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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



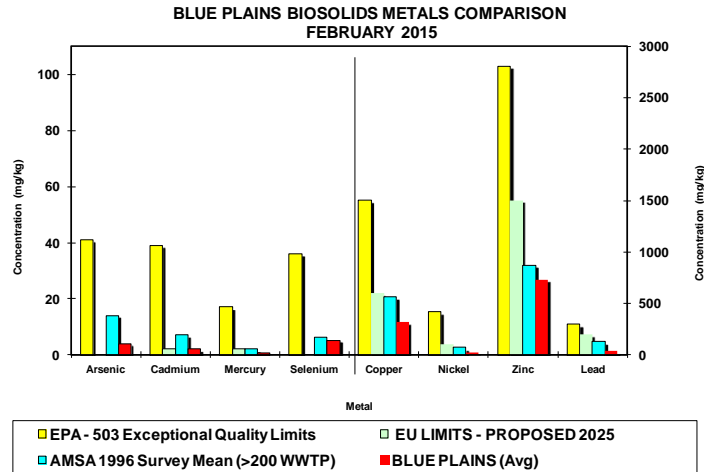
## March 2015 Resource Recovery Report

In March, biosolids hauling averaged 407 wet tons per day (wtpd). Of this total, 0 wtpd were lime stabilized Class B, and 407 wtpd (100%) were digested. This is the first month we produced 100% digested biosolids. The graph below shows the total hauling by contractor for the month of March. The average percent solids for the digested material was 31.3%. At the end of March the Cumberland County storage pad had approximately 8,000 tons (~25,000 tons capacity), Cedarville lagoon had approximately 8,000 tons of Blue Plains biosolids (~30,000 tons capacity), and Fauquier lagoon had 3000 tons (~15,000 tons capacity).

Please note the drop in biosolids management costs (second graph below, right vertical axis) due to the reduction in solids production since digesters came on line, and also due to the drop in fuel costs. In March, diesel prices averaged \$3.27/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in March for the two contracts (DC Water and WSSC) was \$41.66/wet ton. For comparison, in March 2014 the average diesel price was \$4.16/gal and the average contract cost was \$44.10/wet ton.



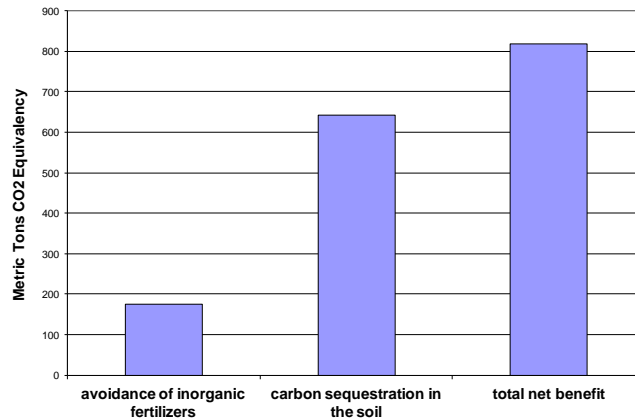
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of December 2014. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (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 February coming directly from the plant and from storage facilities equaled 12,368 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 818 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 1,665,301 car miles off the road in the month of February (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 139,017 metric tons CO<sub>2</sub> equivalent.

**DCWater Biosolids Recycling Program  
Greenhouse Gas Balance Benefits  
February 2015 Totals**



## March Highlights

Staff presented at the 8<sup>th</sup> annual Rooting DC conference—a day-long urban agriculture and gardening forum, with dozens of workshops and “60+ green businesses and nonprofit from throughout the region at an information fair”. More than 40 people attended the talk entitled, “Improving Urban Soils with Biosolids” and most evaluations rated the presentation as Excellent. Attendees were enthusiastic about this recycling effort, and even asked what they could do to help accelerate the availability of biosolids products in this area and started a brief chant of “we want biosolids!”. A reporter who was in the talk said she had been considering writing a negative article about biosolids, but was now considering writing a piece about the use of biosolids compost at community and school gardens in D.C.



## Map of Blue Plains Biosolids Applications and Agricultural \$'s for February 2015

