

February, 2016

# 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 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**  

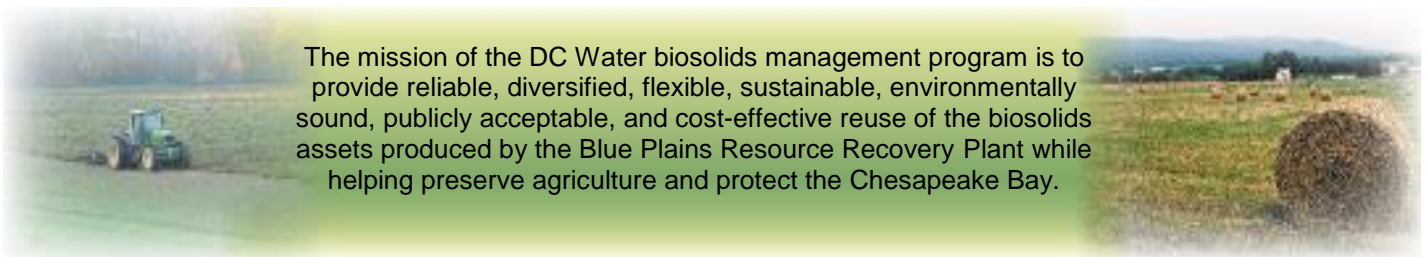

**THERMAL HYDROLYSIS PROCESS (THP) AND DIGESTION FACILITY**  
  
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

**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

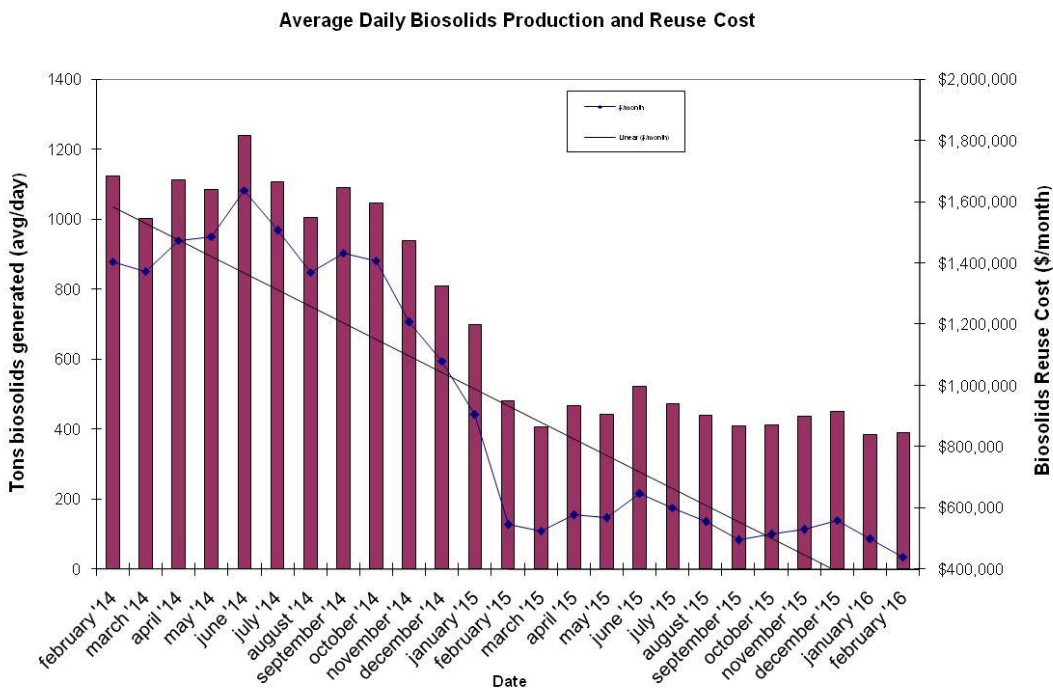
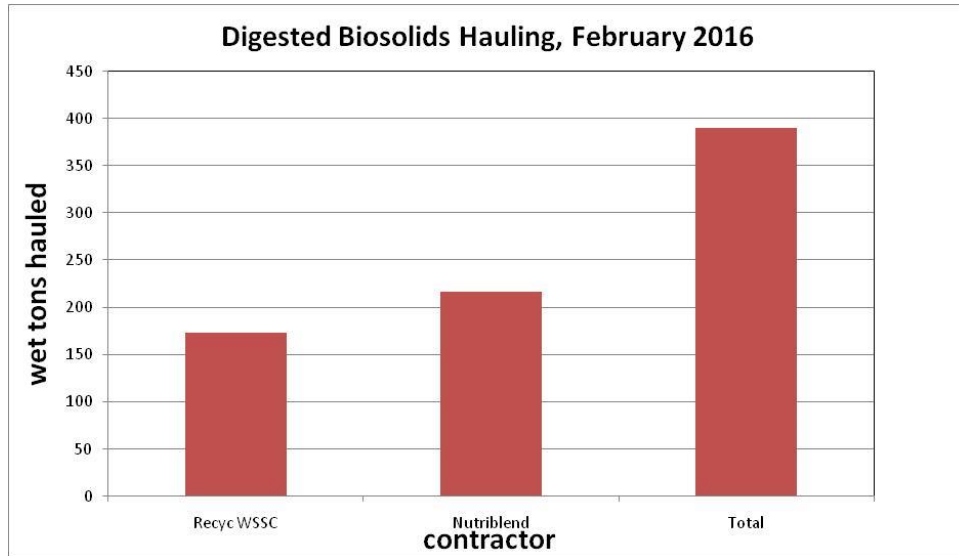
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The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery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

## February 2016 Resource Recovery Report

In February, biosolids hauling averaged 390 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of February. The average percent solids for the digested material was 31.7%. At the end of February the Cumberland County storage pad had approximately 20,000 tons (~25,000 tons capacity), Cedarville lagoon had approximately 0 tons of Blue Plains biosolids (~30,000 tons capacity), Goochland pad had 3394 tons, and Fauquier lagoon had 9230 tons (~15,000 tons capacity).

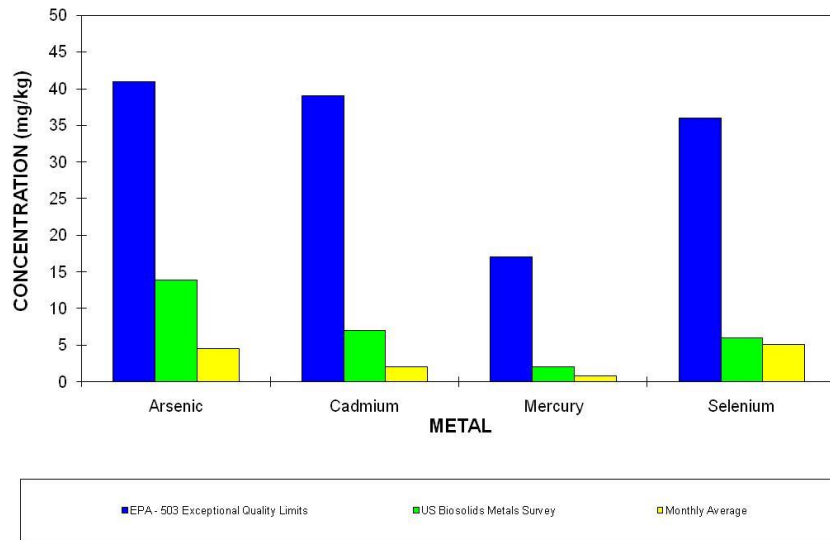


Please note the drop in biosolids management costs (second graph below, right vertical axis) due to the reduction in solids production since digesters came on line, and also due to the drop in fuel costs. In February, diesel prices averaged \$2.20/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in February for the two contracts (DC Water and WSSC) was \$38.75/wet ton. For comparison, in February 2014 the average diesel price was \$3.22/gal and the average contract cost was \$41.72/wet ton.

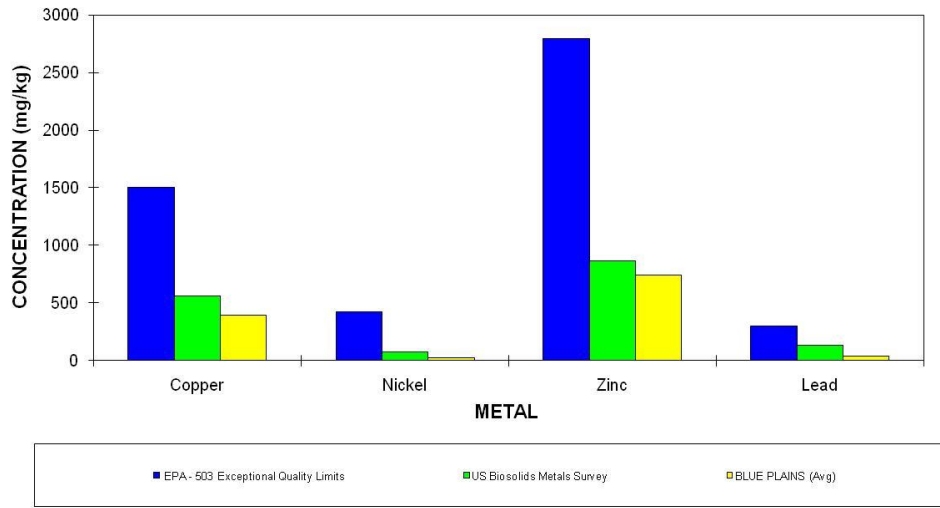
## Product Quality

The graph below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of January 2016. 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.

BLUE PLAINS BIOSOLIDS METALS COMPARISON  
JANUARY 2016



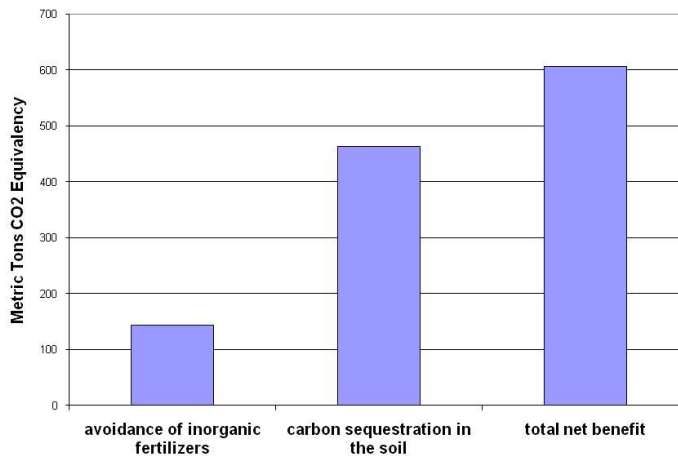
**BLUE PLAINS BIOSOLIDS METALS COMPARISON  
JANUARY 2016**



**Environmental Benefits**

The quantity land applied in January coming directly from the plant and from storage facilities equaled 9,153 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 636 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 1,295,737 car miles off the road in the month of January (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since February, 2006 is 143,141 metric tons CO<sub>2</sub> equivalent.

**DCWater Biosolids Recycling Program  
Greenhouse Gas Balance Benefits  
January 2016 Totals**



## Highlights

### Rooting DC 2016:

Staff tabled and presented for the third consecutive year at the Rooting DC annual one-day forum for urban gardeners. The event served as a “soft launch” of Bloom for this influential audience. Most of the District’s food-growing organizations—school and community gardens, garden clubs, urban agriculture non-profits, tree advocates, for-profit gardening consulting firms, journalists, District government agencies—were represented. Staff gave away 150 sample bags of cured Bloom and marketing materials. Around 30 organizations signed a form expressing interest in receiving a delivery when all permits are in hand. The organizers of the event chose biosolids as one of the topics in the “Game Changers” session, featuring six other innovative organizations and initiatives in D.C. DC Water designed a full-page ad for Bloom that was featured in the program pamphlet that went out to all of the 1,000+ attendees.

### Bloom Videos

Staff finalized three videos promoting the use of Bloom biosolids products. The videos are available on the Bloom web ([www.bloomsoil.com](http://www.bloomsoil.com)). The three videos 1) describe in general terms what Bloom accomplishes, 2) highlight the use of Bloom in urban gardening, and 3) answer commonly asked safety concerns. Please take a few minutes to click on the videos at the Bloom website.

### Biosolids Applications and Agricultural \$’s for January 2016

