

January, 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 meads 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**

**GREEN ENERGY BIORENEWABLES**

**POWER FROM THE PEOPLE**

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

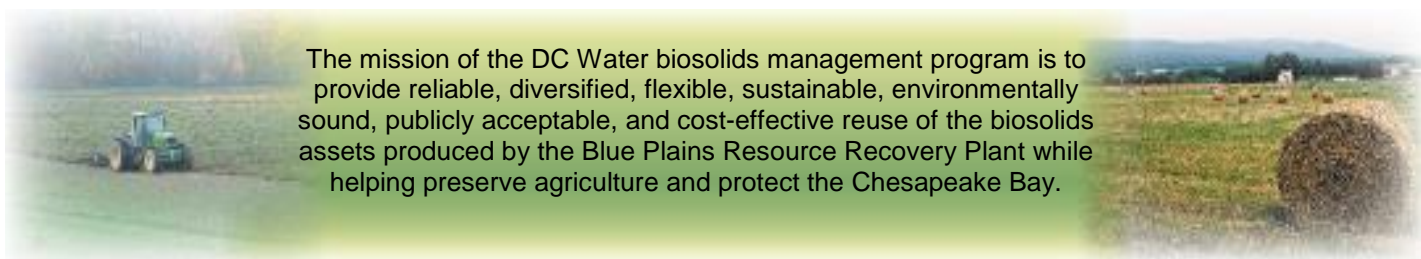
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

**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

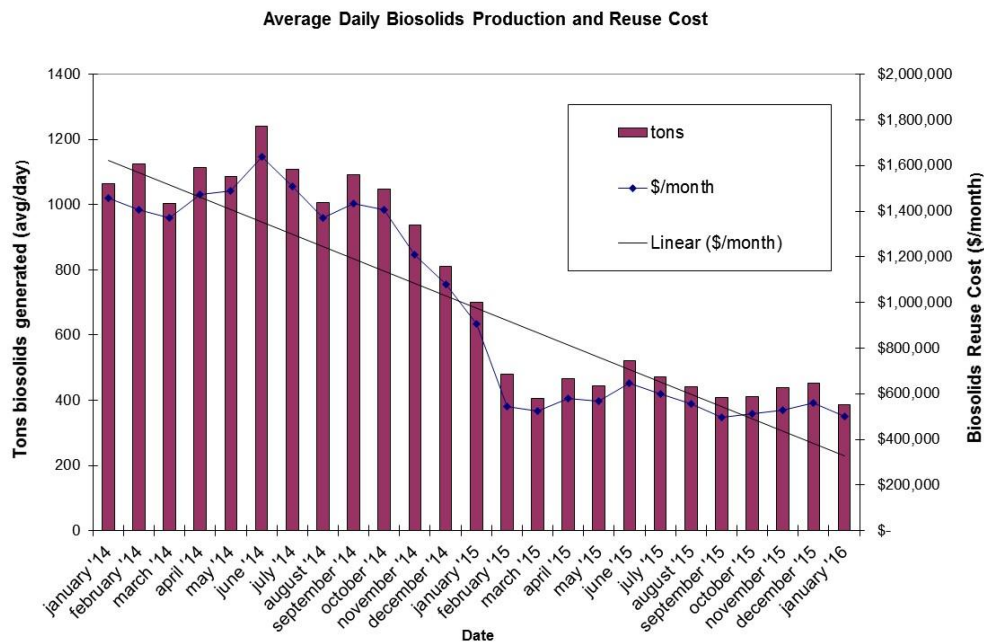
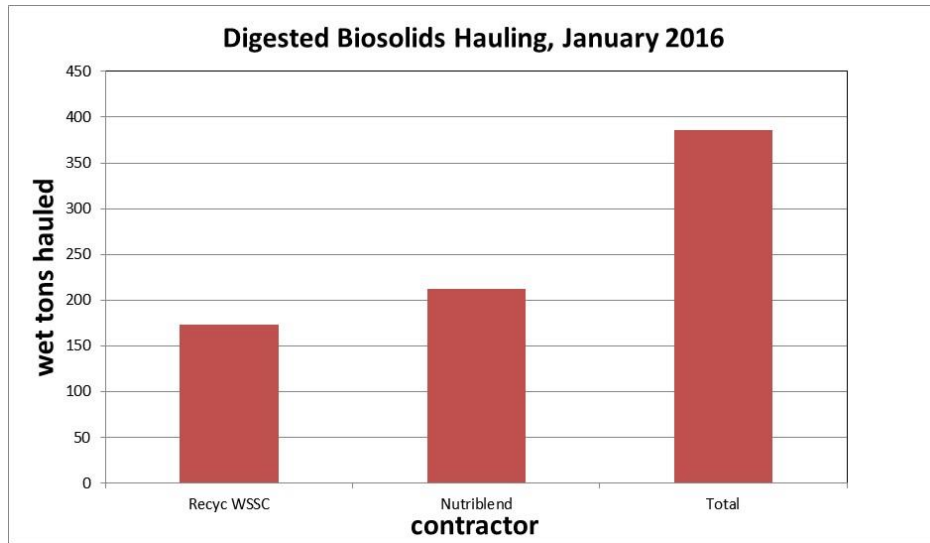
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The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery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

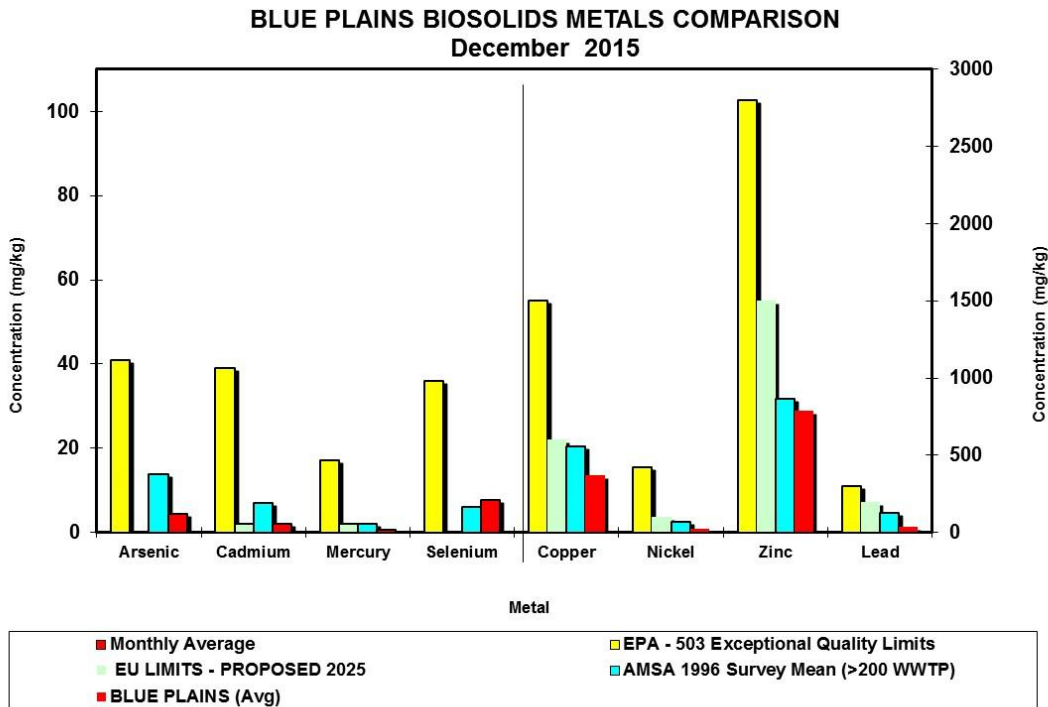
## January 2016 Resource Recovery Report

In January, biosolids hauling averaged 385 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of January. The average percent solids for the digested material was 30.9%. At the end of January the Cumberland County storage pad had approximately 10,052 tons (~25,000 tons capacity), Cedarville lagoon had approximately 0 tons of Blue Plains biosolids (~30,000 tons capacity), Goochland pad had 782 tons, and Fauquier lagoon had 5900 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 January, diesel prices averaged \$2.33/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in January for the two contracts (DC Water and WSSC) was \$39.36/wet ton. For comparison, in January 2014 the average diesel price was \$3.19/gal and the average contract cost was \$41.72/wet ton.

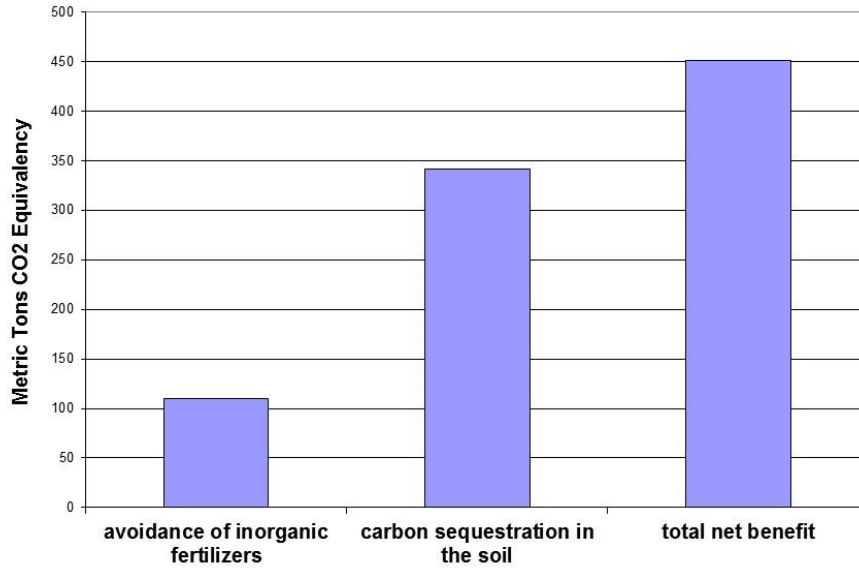
The graph below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of December 2015. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) 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.



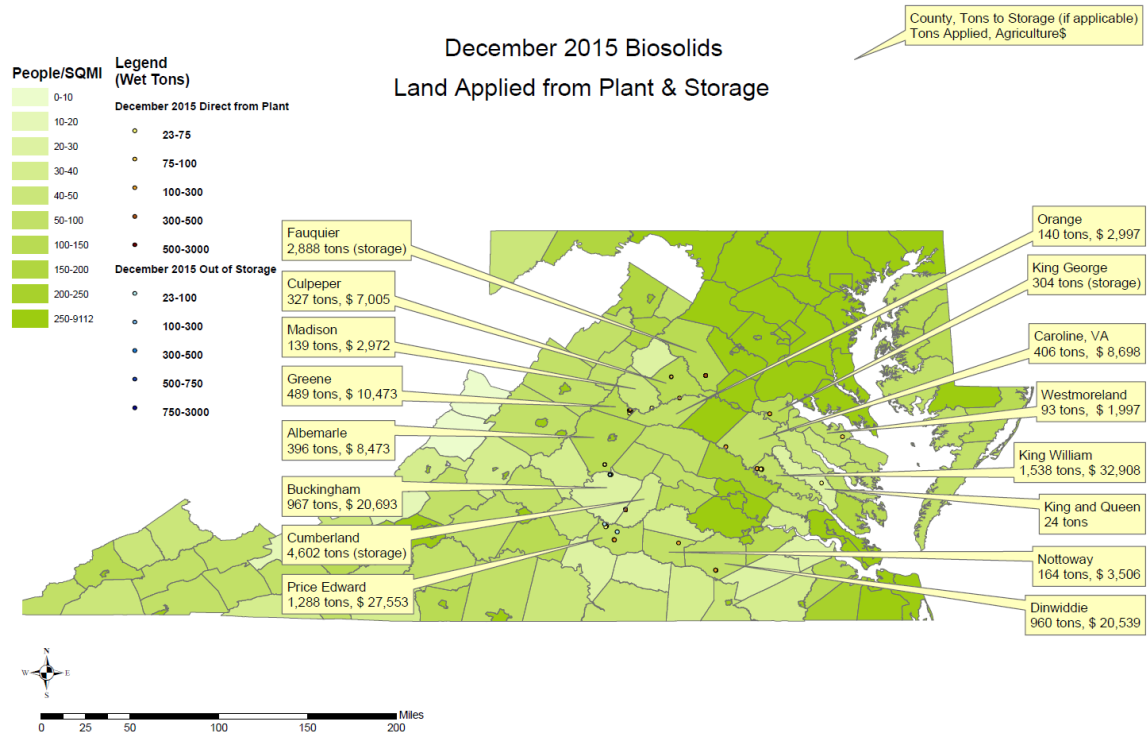
### Environmental Benefits

The quantity land applied in December coming directly from the plant and from storage facilities equaled 13,882 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 December (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 142,337 metric tons CO<sub>2</sub> equivalent.

## DCWater Biosolids Recycling Program Greenhouse Gas Balance Benefits December 2015 Totals



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



## Highlights

The Bloom team visited the Mid Atlantic nursery trade show to talk with landscapers about the possibility of using some of the Bloom product. Several landscapers agreed to visit Blue Plains for a facility tour, and we remain in contact. Staff is compiling a list of partners for Bloom marketing. The Bloom product launch is scheduled for May 12<sup>th</sup> at Blue Plains. In addition, the Bloom website is live and mobile friendly at [www.bloomsoil.com](http://www.bloomsoil.com). Staff funded three videos to promote the use of Bloom. They are available on the shared drive at I:\WASAWIDE\BioSolid Video\final.

