

July, 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**

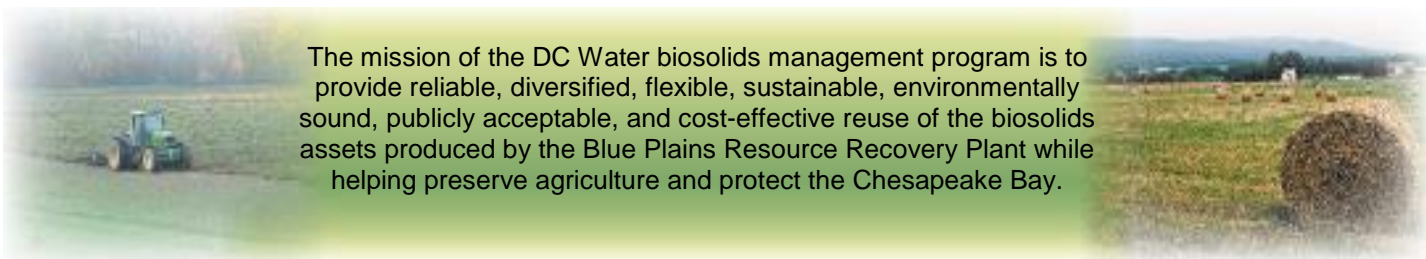
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

**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

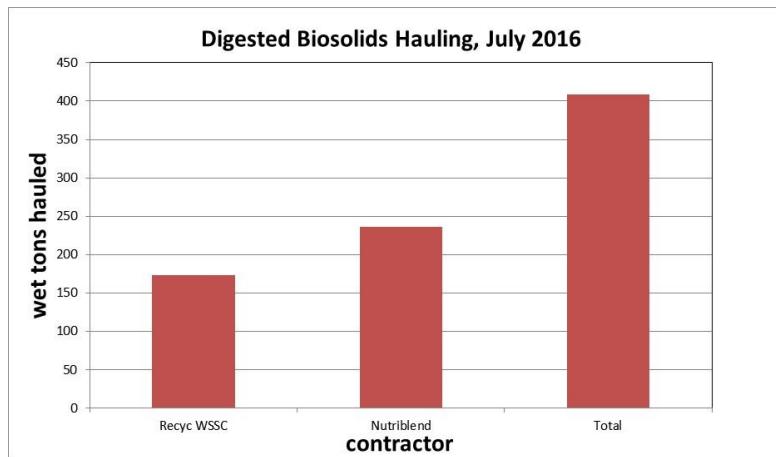
Resource Recovery Division  
 5000 Overlook Avenue SW  
 Washington, DC 20032  
 202-787-4329; 202-787-4226 (fax)  
[cpeot@dcwater.com](mailto:cpeot@dcwater.com)



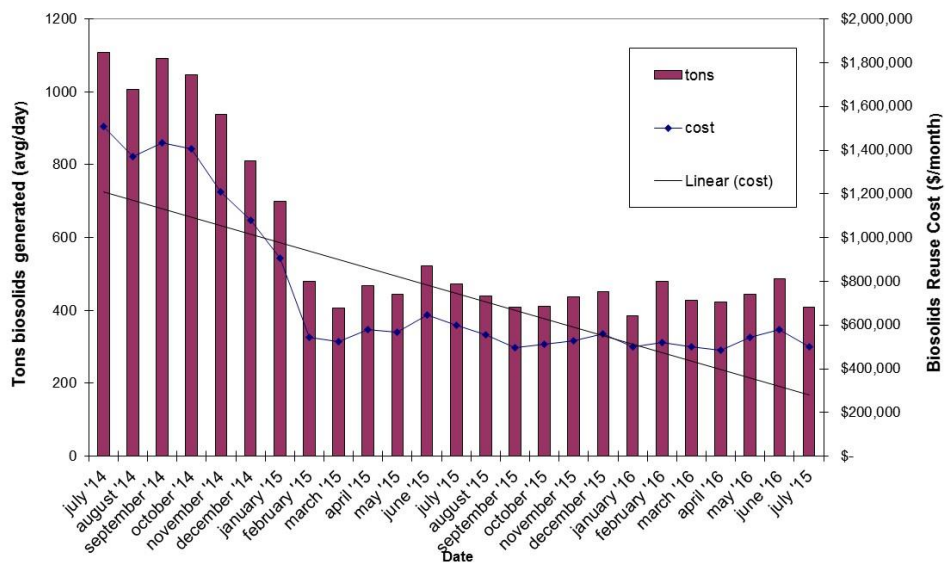
The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

## July 2016 Resource Recovery Report

In July, biosolids hauling averaged 409 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of July. The average percent solids for the digested material was 31.1%. At the end of July the Cumberland County storage pad had approximately 8000 tons (~25,000 tons capacity), Cedarville lagoon had approximately zero tons of Blue Plains biosolids (~30,000 tons capacity), Goochland pad had zero tons, and Fauquier lagoon had 2700 tons (~15,000 tons capacity).



Average Daily Biosolids Production and Reuse Cost

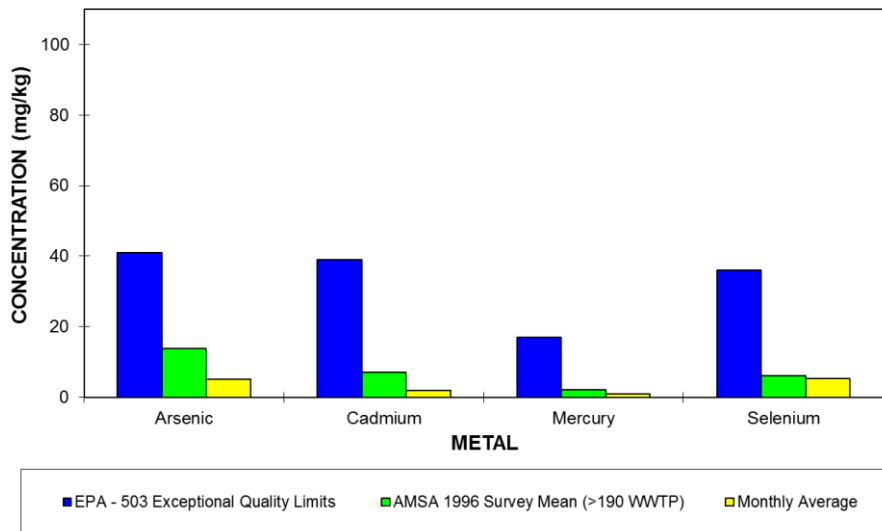


In July, diesel prices averaged \$2.51/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost was \$39.60/wet ton.

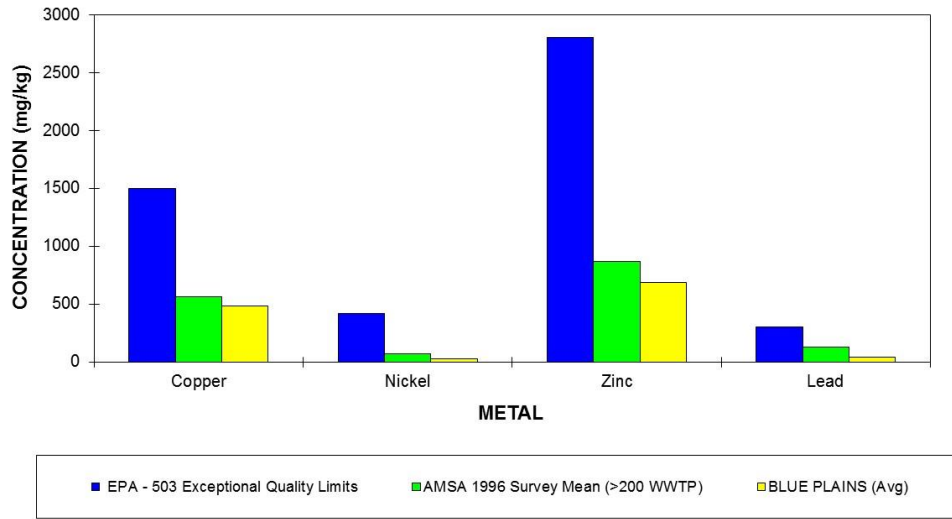
### Product Quality

The graph below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of June 2016. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits and the national average.

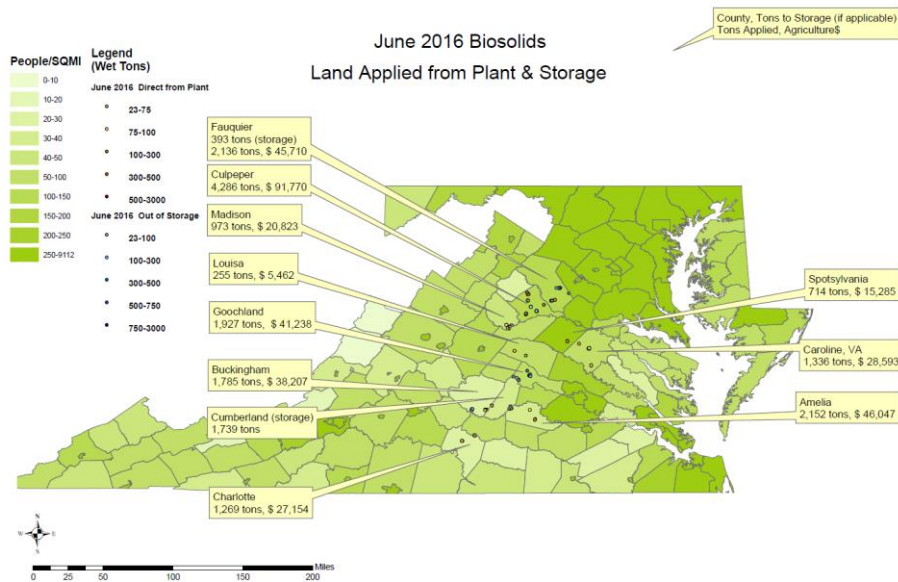
**BLUE PLAINS BIOSOLIDS METALS COMPARISON**  
June 2016



### BLUE PLAINS BIOSOLIDS METALS COMPARISON June 2016



### Biosolids Applications and Agricultural \$'s for June 2016



### Environmental Benefits

The quantity land applied in June coming directly from the plant and from storage facilities equaled 16,836 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1132 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 2,306,554 car miles off the road in the month of June (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 147,521 metric tons CO<sub>2</sub> equivalent.

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

