

June, 2016

Biosolids Resource Recovery Monthly Report

NUTRIENTS and CARBON RECYCLING

dc water is life BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT: **A RESOURCE RECOVERY FACILITY**

GREEN ENERGY BIORENEWABLES

water • nutrients • carbon • energy

BLUE PLAINS SERVICE AREA
DC Water receives and treats wastewater collected from the District of Columbia sewer system and from the Maryland and Virginia suburbs. On an average day, more than 300 million gallons of raw sewage flow into the Blue Plains Advanced Wastewater Treatment Plant from area jurisdictions.

ENERGY
POTOMAC RIVER
CHEESAPEAKE BAY

CLEAN WATER

DRINKING WATER SOURCE POTOMAC RIVER AT GREAT FALLS AND LITTLE FALLS

AGRICULTURE
SILVICULTURE
RURAL: FEED CORN, GRASS, HAY ETC.

DC RETRO AREA

DC WATER

dcwater.com/biosolids

FARMING

Prevents carbon and nutrients released at \$300.00 per acre.

SILVICULTURE

Increase yield and improve understorey.

RECLAMATION

Restoring sites to their natural state and providing wildlife habitats.

URBAN RESTORATION

Grow trees and reduce runoff.

POWER FROM THE PEOPLE

THERMAL HYDROLYSIS PROCESS (THP) AND DIGESTION FACILITY

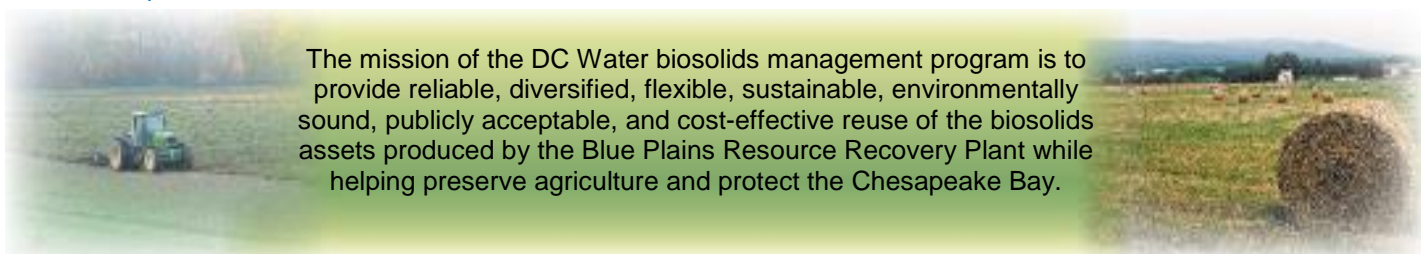
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

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 CO2e 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

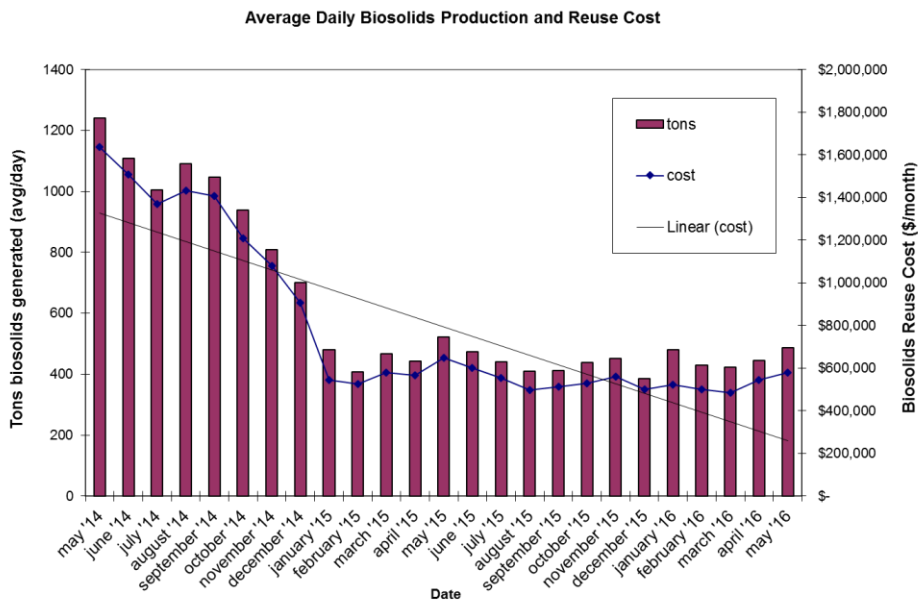
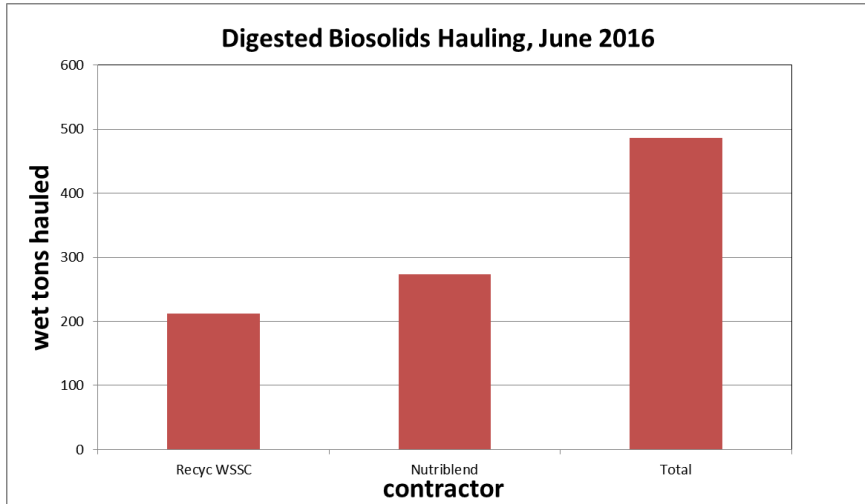
Resource Recovery Division
5000 Overlook Avenue SW
Washington, DC 20032
202-787-4329; 202-787-4226 (fax)
cpeot@dcwater.com



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.

June 2016 Resource Recovery Report

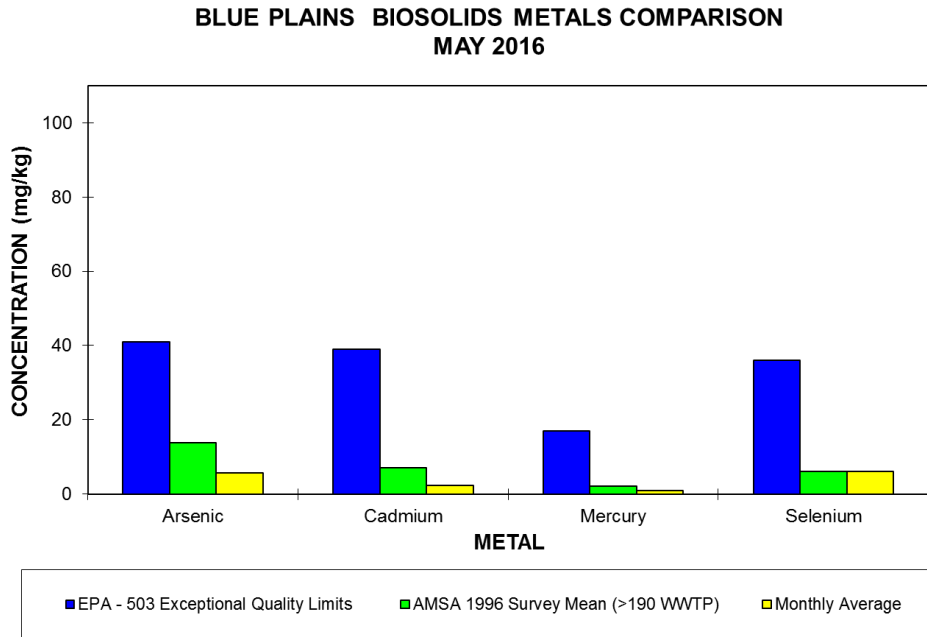
In June, biosolids hauling averaged 486 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of June. The average percent solids for the digested material was 30.9%. At the end of June the Cumberland County storage pad had approximately 8000 tons (~25,000 tons 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).



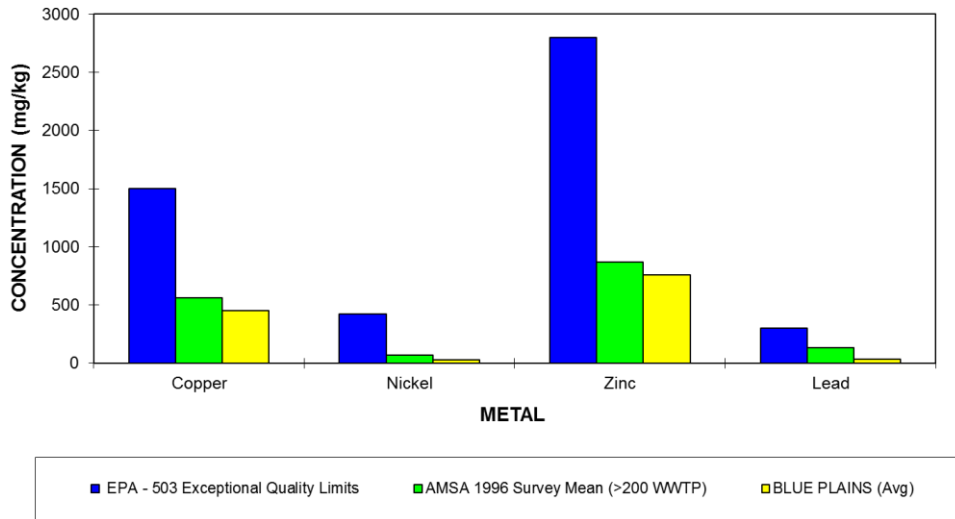
In June, diesel prices averaged \$2.53/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost was \$39.71/wet ton.

Product Quality

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



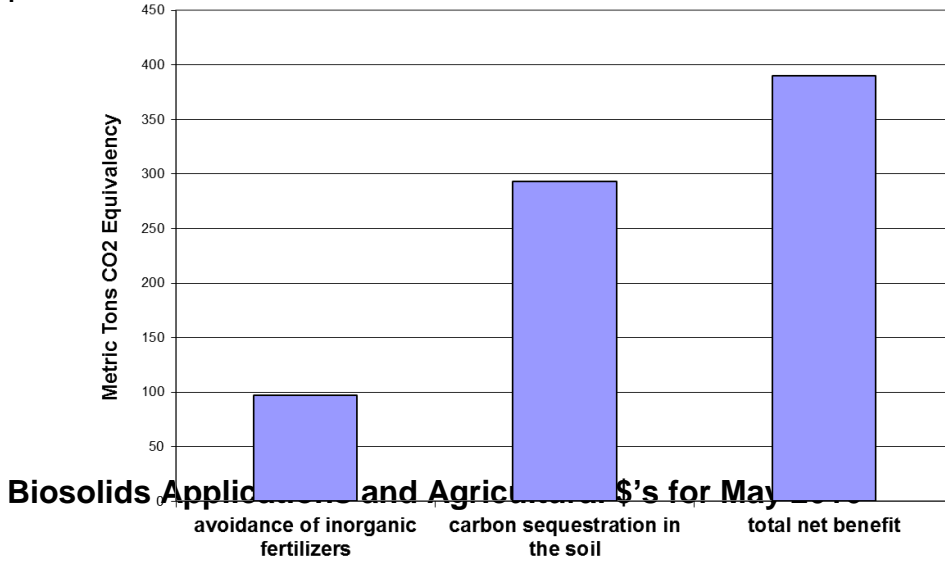
**BLUE PLAINS BIOSOLIDS METALS COMPARISON
MAY 2016**



Environmental Benefits

The quantity land applied in May coming directly from the plant and from storage facilities equaled 5678 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 390 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 794,589 car miles off the road in the month of May (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since, January 2006 is 146,389 metric tons CO₂ equivalent.

DCWater Biosolids Recycling Program Greenhouse Gas Balance Benefits May 2016 Totals



Biosolids Application and Agricultural Benefits for May

