



# Biosolids Reuse Monthly Report


**NUTRIENTS and CARBON RECYCLING**

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

**SILVICULTURE**  
  
Increases yield and improves undergrowth.

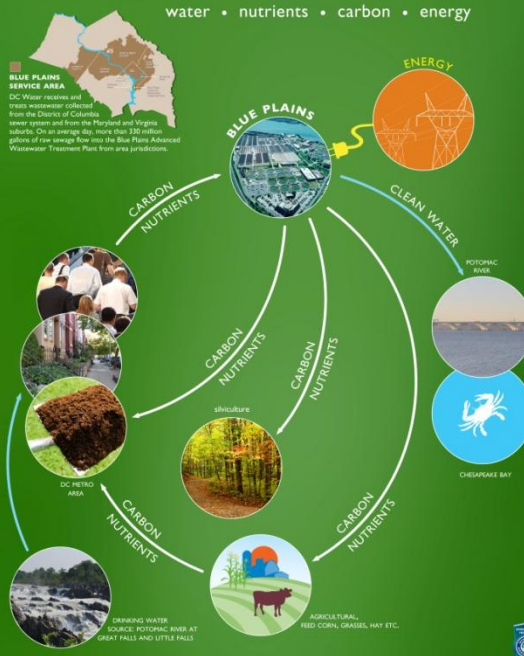
**RECLAMATION**  
  
Restoring sites to their natural state and providing wildlife habitats.

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




**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**  


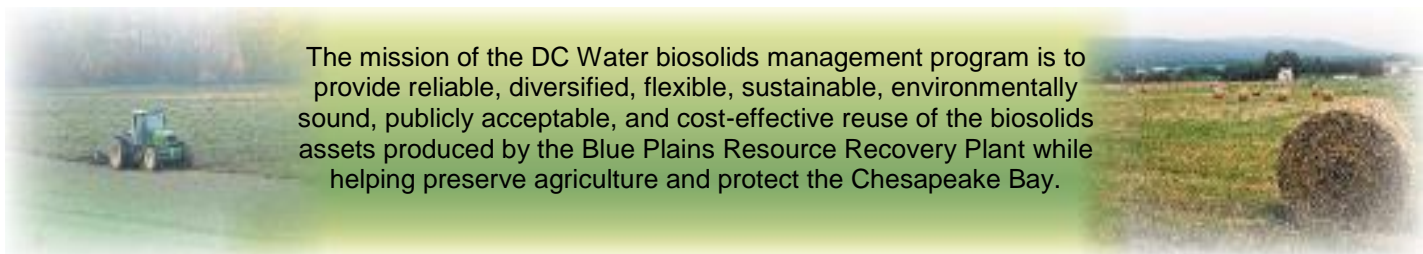
**THERMAL HYDROLYSIS PROCESS (THP) AND DIGESTION FACILITY**  
  
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

**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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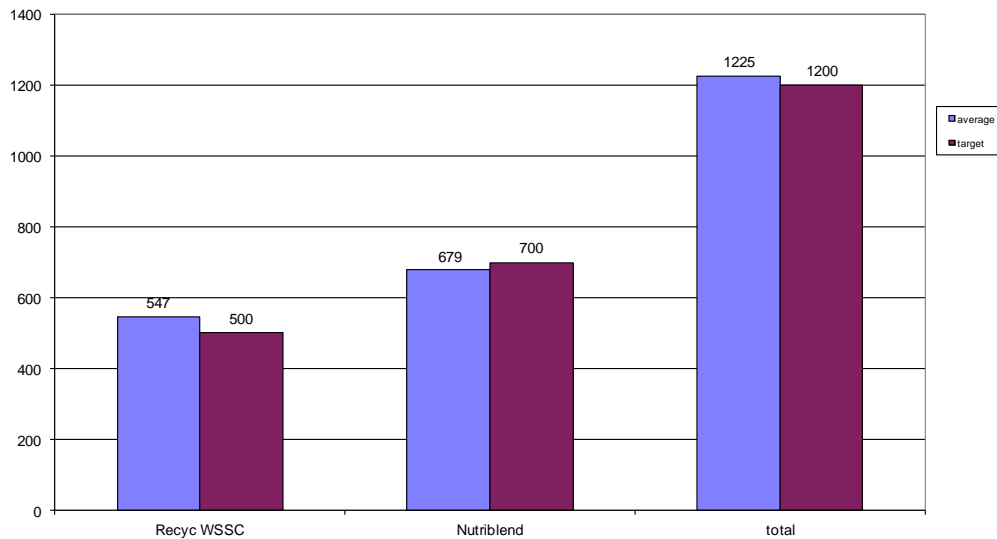


The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

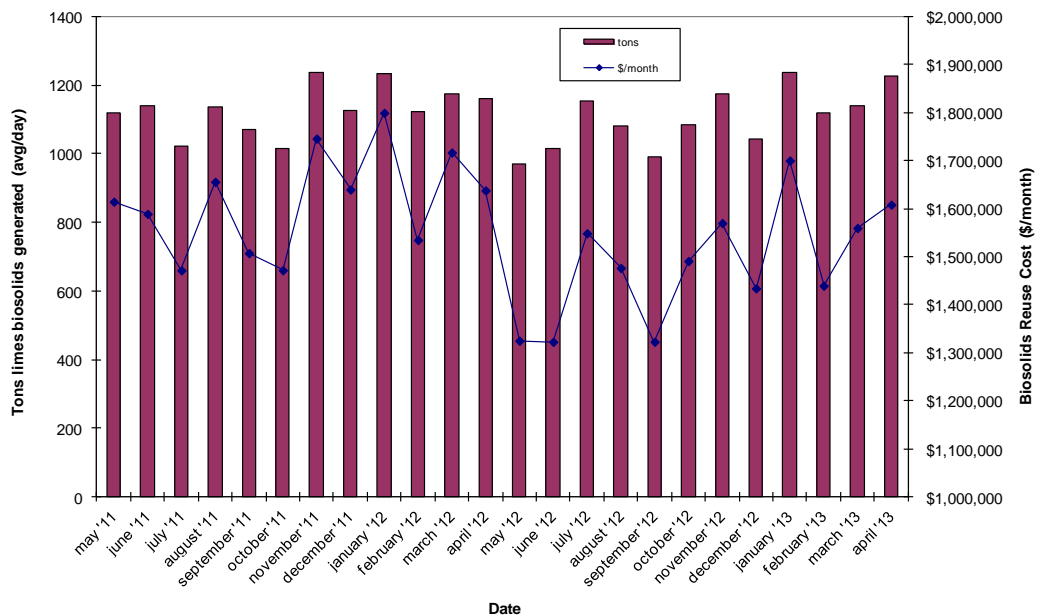
## April 2013 Biosolids Division Report

In April, biosolids hauling averaged 1225 wet tons per day. The graph below shows the hauling by contractor for the month of April. Average % solids for the unlimed cake was 26.0%. Average lime dose for the month was 18.2%. Nutriblend took 502 tons of biosolids to the Spottsylvania County compost facility. At the end of April the Cumberland County storage pad had 16,814 tons (~25,000 tons capacity), Ragsdale Pad had 2,577 tons, and the Cedarville lagoon had 5,033 tons (~30,000 tons capacity).

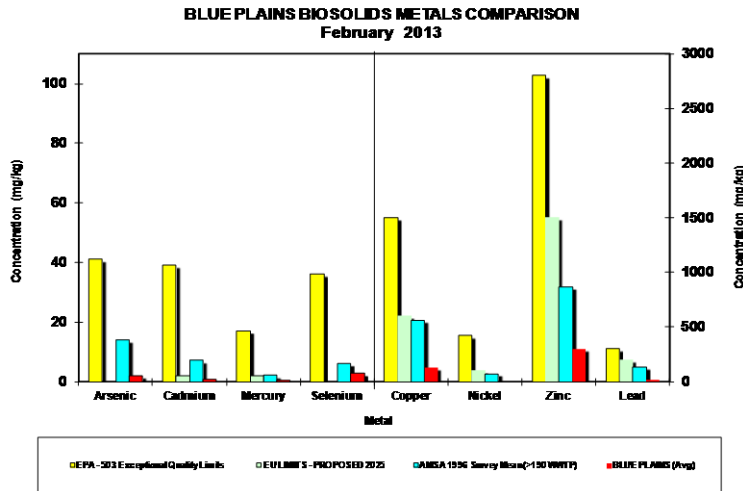
Average Daily Hauling by Contractor for April 2013



Average Daily Biosolids Production and Reuse Cost



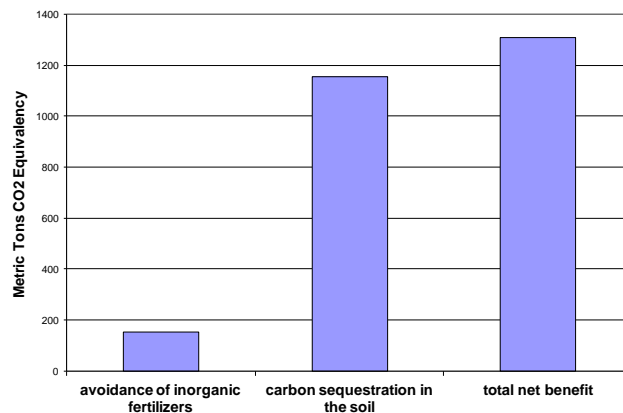
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of February 2013. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (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 coming directly from the plant and from storage facilities equaled 21,985 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1,162 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 2,366,314 car miles off the road in the month of March (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 1116,620 metric tons CO<sub>2</sub> equivalent.

## DC Water Biosolids Recycling Program Greenhouse Gas Balance Benefits March 2013 Totals



## April Highlights

Staff participated into a Clean Rivers Project event to christen the tunnel boring machine. Staff potted 200 native sugar maple tree saplings as a thank you gift for those that participated in the event. Each tree came with instructions for planting and a paragraph about the synergies of using the biosolids resource in the service area to help reduce runoff and beautify DC. All 200 trees left in the hands of individuals who agreed to plant and care for them.

Staff attended and presented a paper at the Virginia Water Environment Association educational seminar in Richmond. The presentation was on the evolution of the DC Water biosolids program, with a description of the digester and thermal hydrolysis facility and the future plans for the Class A product.

Staff conducted a tour with an independent film crew, who came to Blue Plains as a part of a project looking at the health of the Potomac River. The crew filmed an interview with the General Manager, and then went out to gather b-roll footage at the treatment plant. The director plans to have the film ready for distribution and viewing next spring.

## Map of Blue Plains Biosolids Applications and Agricultural \$'s for March 2013

