

Biosolids Reuse 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 miles 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

GREEN ENERGY BIORENEWABLES

POWER FROM THE PEOPLE


THERMAL HYDROLYSIS PROCESS (THP) AND DIGESTION FACILITY

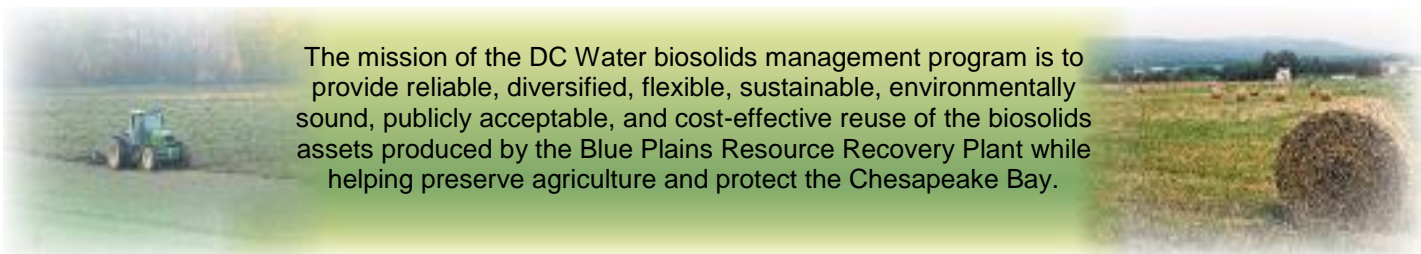
DC Water will be the first in North America to use thermal hydrolysis for wastewater treatment. When completed, this facility will be the largest plant of its kind in the world.

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 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)
 cpot@dcwater.com

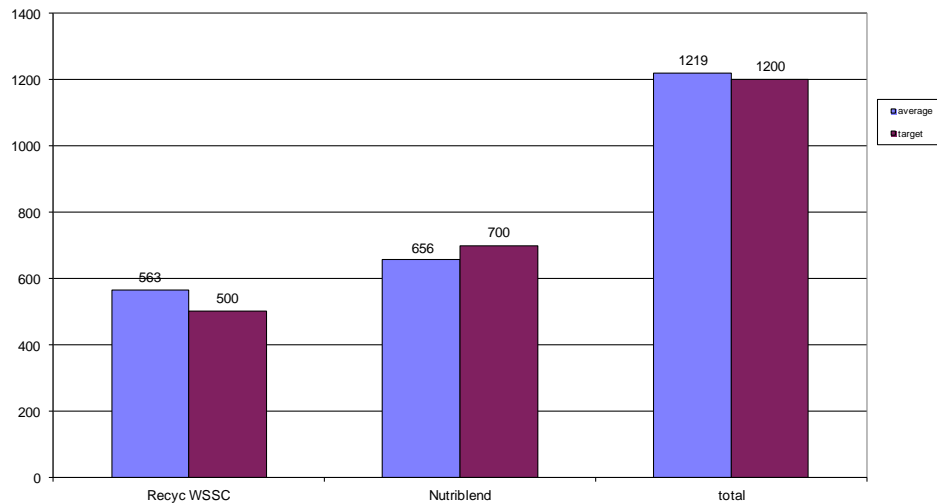


The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

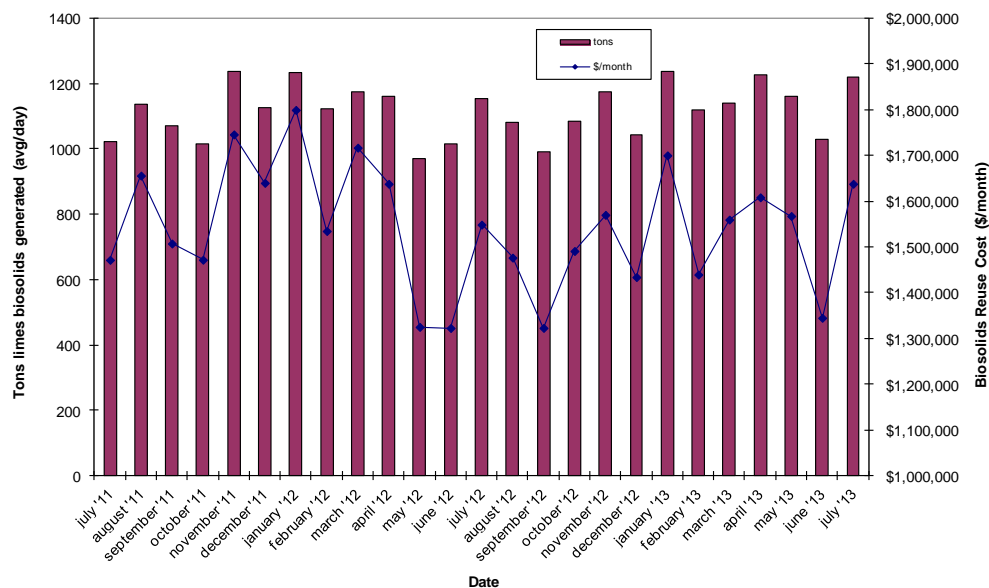
July 2013 Biosolids Division Report

In July, biosolids hauling averaged 1219 wet tons per day. The graph below shows the hauling by contractor for the month of July. Average % solids for the unlimed cake was 26.9%. Average lime dose for the month was 18.5%. Nutriblend took 273 tons of biosolids to the Spottsylvania County compost facility. At the end of June the Cumberland County storage pad had 21,394 tons (~25,000 tons capacity), the Fauquier lagoon had 345.42 tons, and the Cedarville lagoon was emptied (~30,000 tons capacity).

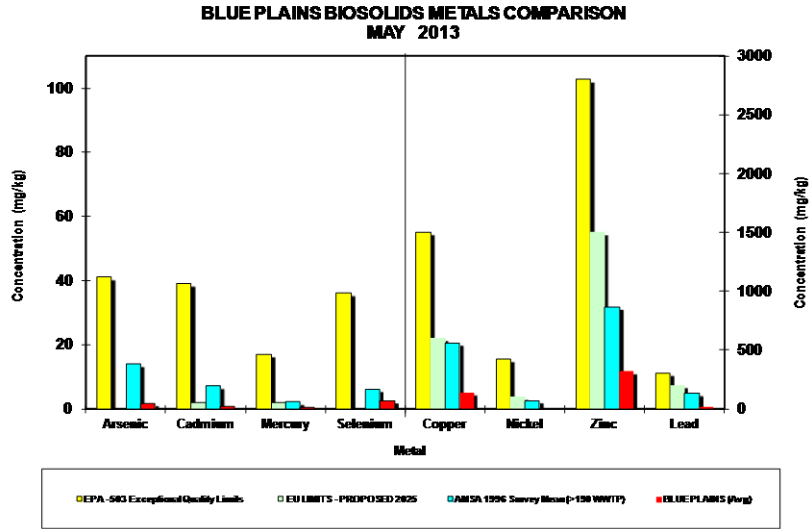
Average Daily Hauling by Contractor for July 2013



Average Daily Biosolids Production and Reuse Cost



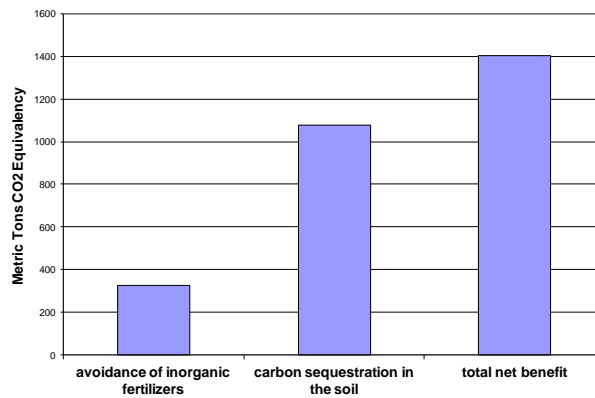
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of May 2013. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) 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 in June coming directly from the plant and from storage facilities equaled 23,956 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1404 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 2,859,283 car miles off the road in the month of June (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 123,440 metric tons CO₂ equivalent.

**DCWater Biosolids Recycling Program
Greenhouse Gas Balance Benefits
June 2013 Totals**



June Highlights

Staff met with a member of the Albemarle County Board of Supervisors to discuss biosolids land application in the Charlottesville area. Ann Mallek has expressed concerns over testing and health impacts with biosolids coming from out of the county to the farmlands in her district (White Hall). Staff answered questions and learned more details about her concerns. During the course of the discussion, staff agreed to provide information to her regarding some of the research we are sponsoring at Virginia Tech as well as information about the risks associated with biosolids recycling. Both parties agreed to keep the lines of communication open. Thanks to the Virginia Biosolids Council for recognizing the need for the meeting, and for arranging a time and place for the discussion to occur.

Staff made a presentation to the Chesapeake Bay Foundation (CBF) board meeting in June, at the request of technical staff. CBF is interested in the DC Water digestion and green energy project. Staff presented a history of the biosolids recycling program and an overview of the digester project and the future goals of the program. The CBF board members received the information enthusiastically and asked many probing questions. Staff agreed to keep CBF apprised of progress, and also agreed to host a tour for anyone interested. Staff will coordinate with CBF staff.

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

