

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 miles to their natural state and providing wildlife habitats.

URBAN RESTORATION

Grow trees and reduce runoff.



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.

BLUE PLAINS
water • nutrients • carbon • energy

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.

dcwater.com/biosolids

CLEAN WATER

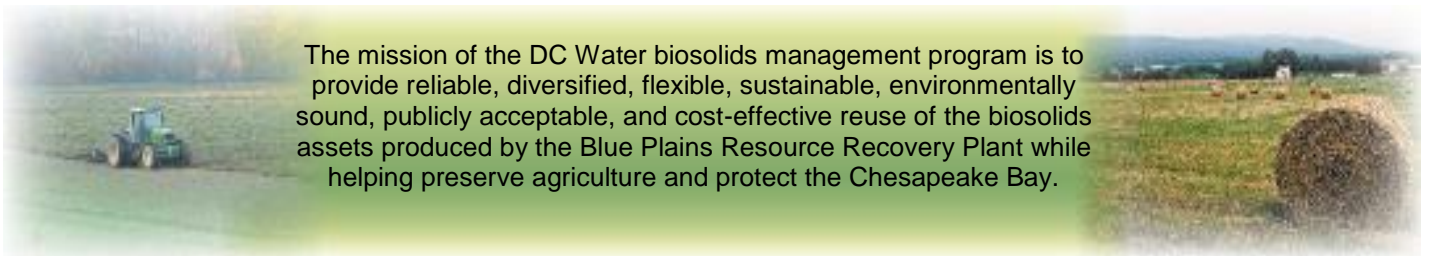
POTOMAC RIVER

CHEESAPEAKE BAY

CHEESAPEAKE BAY

DC Water

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

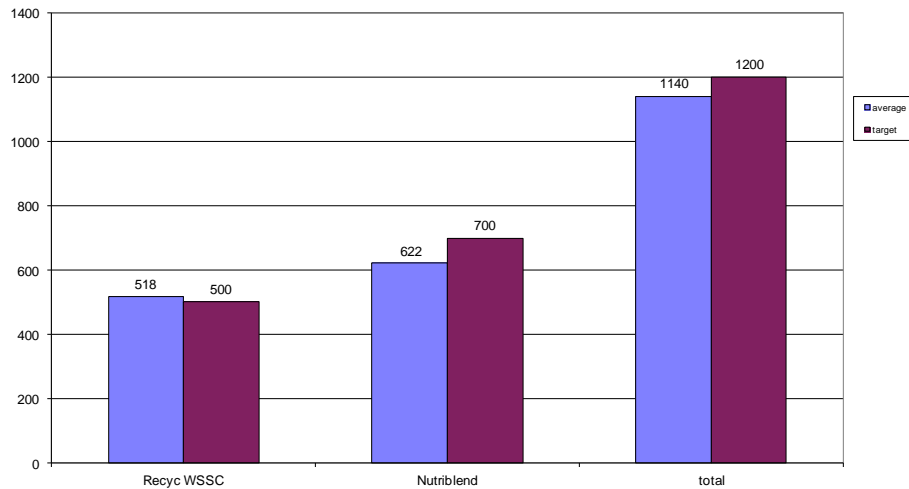


The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

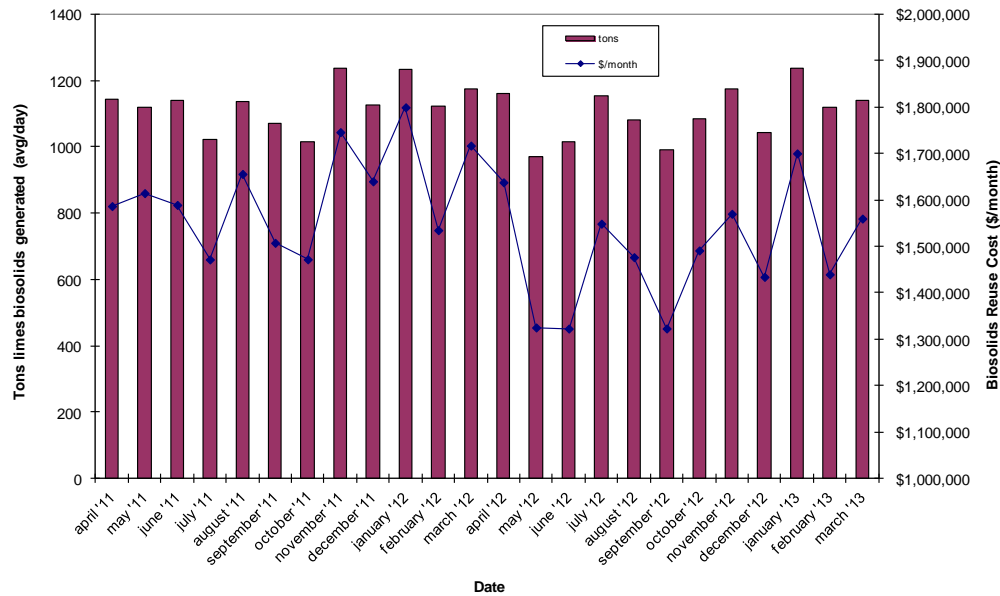
March 2013 Biosolids Division Report

In March, biosolids hauling averaged 1140 wet tons per day. The graph below shows the hauling by contractor for the month of March. Average % solids for the unlimed cake was 24.8%. Average lime dose for the month was 19.2%. Nutriblend took 425 tons of biosolids to the Spottsylvania County compost facility. At the end of March the Cumberland County storage pad had 18,743 tons (~25,000 tons capacity), Ragsdale Pad had 3,300 tons, Harrison Pad had 1,585 tons, Wilmar Pad had 800 tons, and the Cedarville lagoon had 19,737 tons (~30,000 tons capacity).

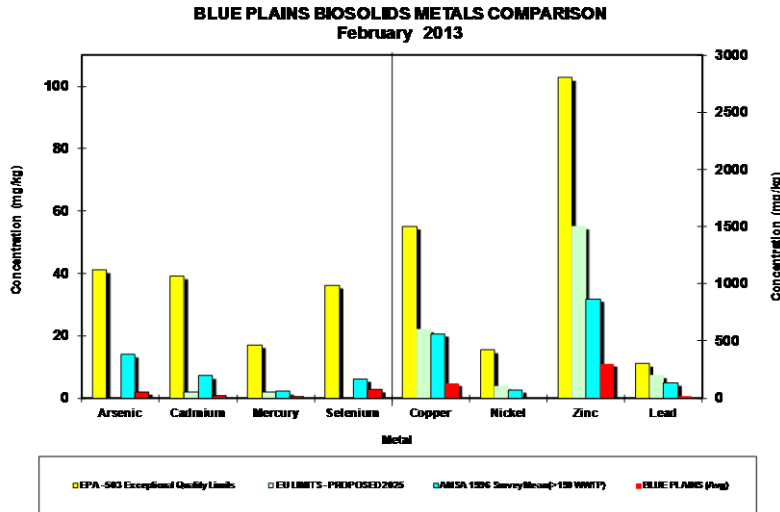
Average Daily Hauling by Contractor for March 2013



Average Daily Biosolids Production and Reuse Cost



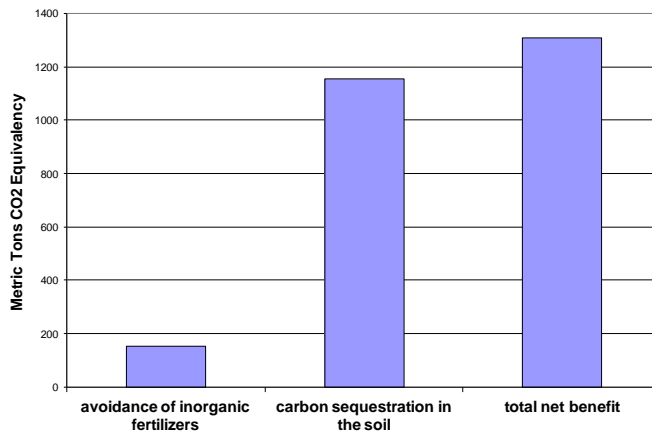
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of December 2012. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (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 19,916 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1309 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 2,665,706 car miles off the road in the month of February (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 115,458 metric tons CO₂ equivalent.

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



March Highlights

Staff hosted a group of scientists and staffers from the American Soil Science Academy for a tour for the plant and digester project, and a discussion of the use of biosolids in urban settings. Staff is involved with this group as a member of their urban soils coalition, offering information and data on the use of biosolids for green infrastructure in urban areas. The group meets on a call monthly, and quarterly in person in DC to discuss progress toward greening cities with healthy soils.

Staff visited our contracted compost facility at Spotsylvania County, VA, to discuss delivery of compost back to DC Water for use in the service area. Staff is in discussion with DC DOT about use of the product on several restoration projects, and we have just initiated an employee compost giveaway program, allowing employees to take compost home in their cars or trucks. Facilities staff will keep a shed full of the compost and available to anyone who would like to use the product. The shed has a roll-up door and shovels available – employees must bring their own containers, and we ask that anyone who takes the material fill out a short survey, stating where and how the material will be used. For more information, please contact Bill Brower at 202-787-4296.

Staff attended and testified at a DC City Council committee hearing, chaired by Mary Cheh. Councilperson Cheh asked DC Water to discuss the digester project and the potential divert food waste from the solid waste stream, in light of a proposed solid waste incinerator study for the District. Staff stated that although feasible, DC Water is not committing to take outside materials until such time that we are comfortable operating the digesters on the material for which they were designed. Ms. Cheh asked that begin discussions with DC DPW on the feasibility of this topic.

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

