


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 mines 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

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 30,000 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

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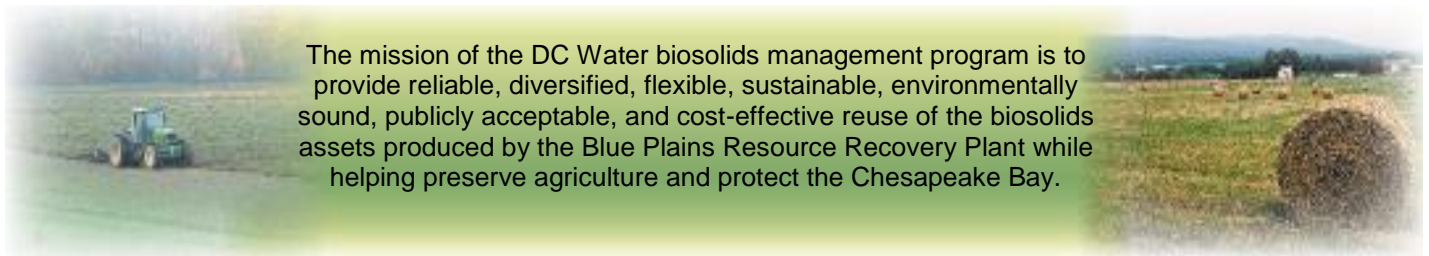
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DC Water

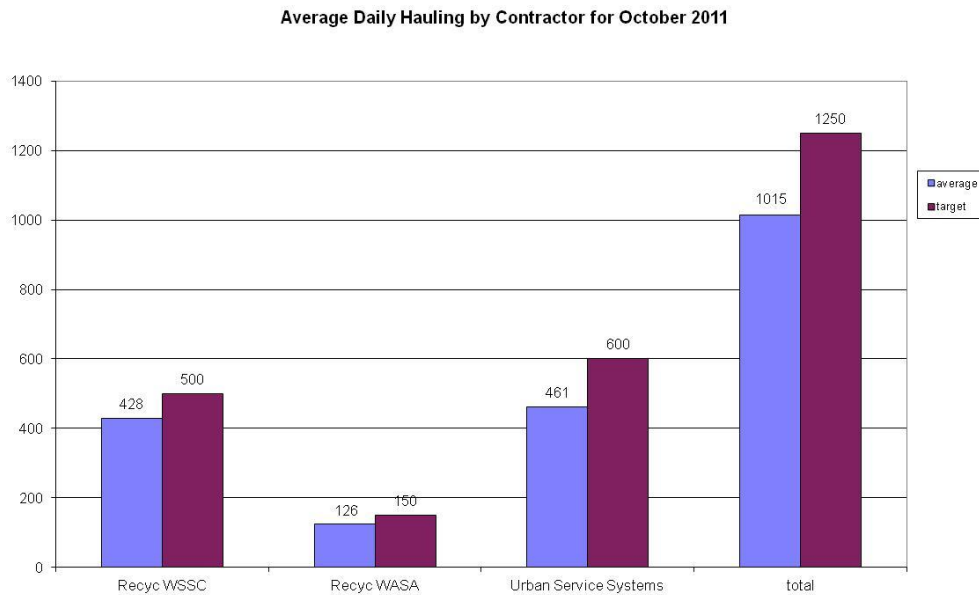
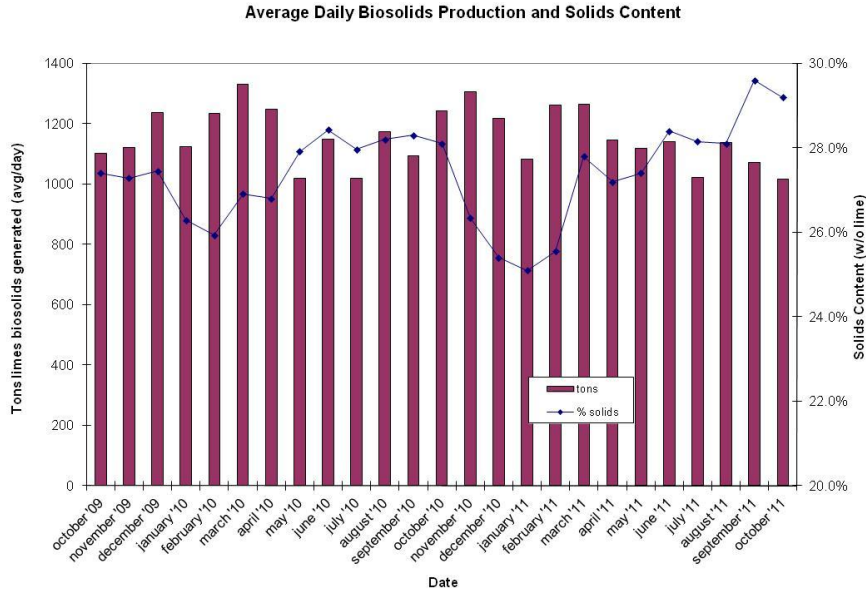
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The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery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

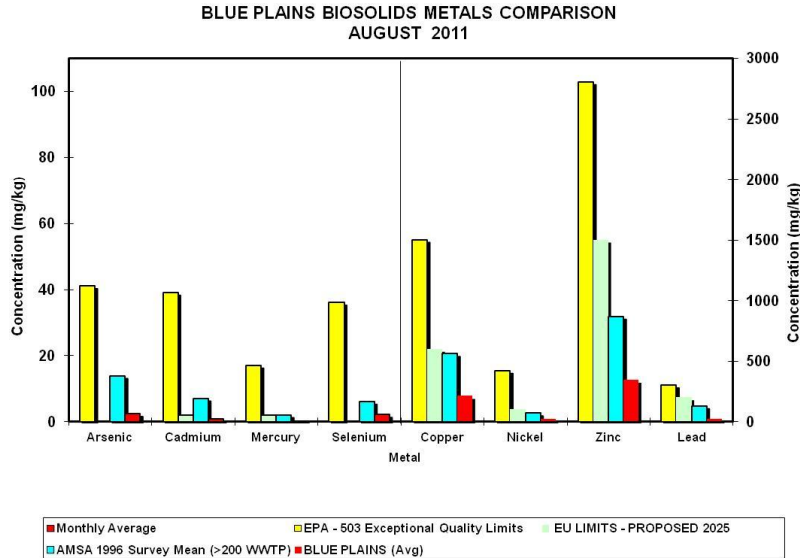


October 2011 Biosolids Division Report

In October, biosolids hauling averaged 1015 wet tons per day. The average solids content was 29.2%. The average lime dose was 18.3%. The graph below shows the hauling by contractor for the month of October. In October, DC Water again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In October a total of 2449 tons went to compost production. At the end of October the Cumberland County storage pad had 480 tons (~25,000 tons capacity) and the Cedarville lagoon (~30,000 tons capacity) was empty.



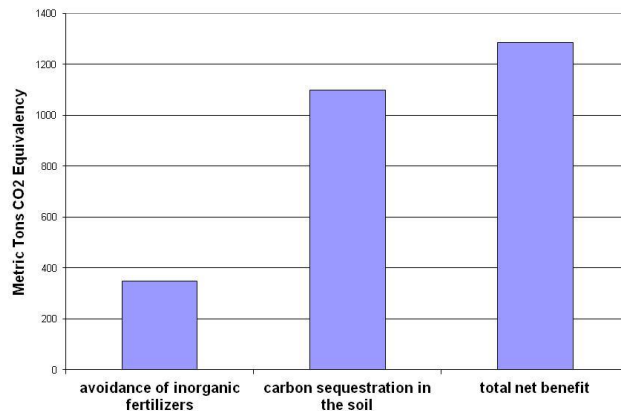
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of September 2011. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (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 20,172 tons. In addition, 2401 tons went to composting. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1287 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 2,947,380 car miles off the road in the month of September (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2007 is 87,614 metric tons CO₂ equivalent.

**DCWASA Biosolids Recycling Program
Greenhouse Gas Balance Benefits
September 2011 Totals**



October Highlights

Staff gave a tour to a group of representatives from the National Agronomy, Crop, Soil Science Societies, including the Director of Science Policy. The group was interested in hearing about our plans for digesting solids and producing Class A Biosolids for use in agriculture and blended soils. They have a keen interest in restoration of urban soils to help with water retention, carbon sequestration, runoff, etc. We agreed to continue the dialogue and work together when we have product for demonstration.

Staff participated in the National Biosolids Partnership (NBP) Steering Committee strategic planning meeting in Alexandria. As a member of the Steering Committee, staff is tasked with defining the direction for the organization going forward, beyond merely branding agencies with its EMS certification. The new charge includes outreach, coordination, and proactive communication with lawmakers and the press.

Staff was named this past month to head a WEF Task Force to look at the feasibility of rebranding wastewater treatment plants in the US. The examination will look at changing the perception of what we do from “wastewater treatment” to “resource recovery”. The Task Force is charged with producing a report for the WEF Leadership Committee for the mid-year meeting in late January.

The Virginia State Water Control Board passed the Virginia biosolids Regulations, which are now in the public comment period. Proactive interaction with regulators and decision makers helped ensure that the regulations were based on science while remaining protective of the public and the environment. Several changes were included in this regulation, including increased buffers for those with health concerns, storage changes, and a requirement for doctor consultation in cases of health concerns.

Map of Blue Plains Biosolids Applications and Agricultural \$'s for September 2011

