June, 2015

Biosolids Resource Recovery Monthly Report

DC Water

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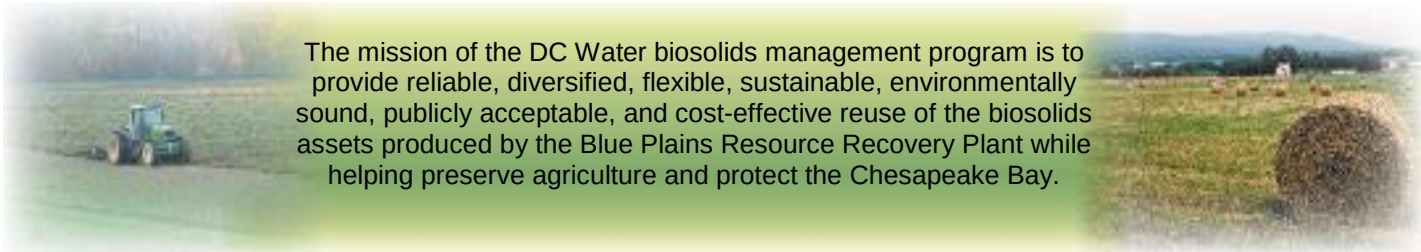
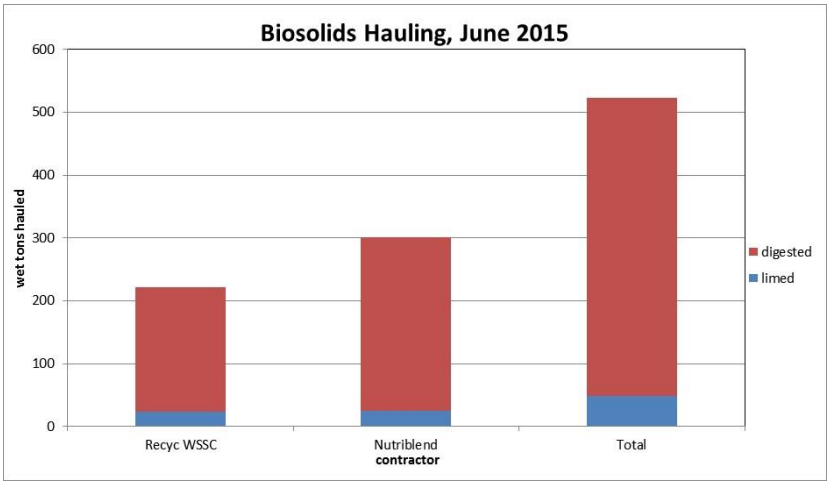
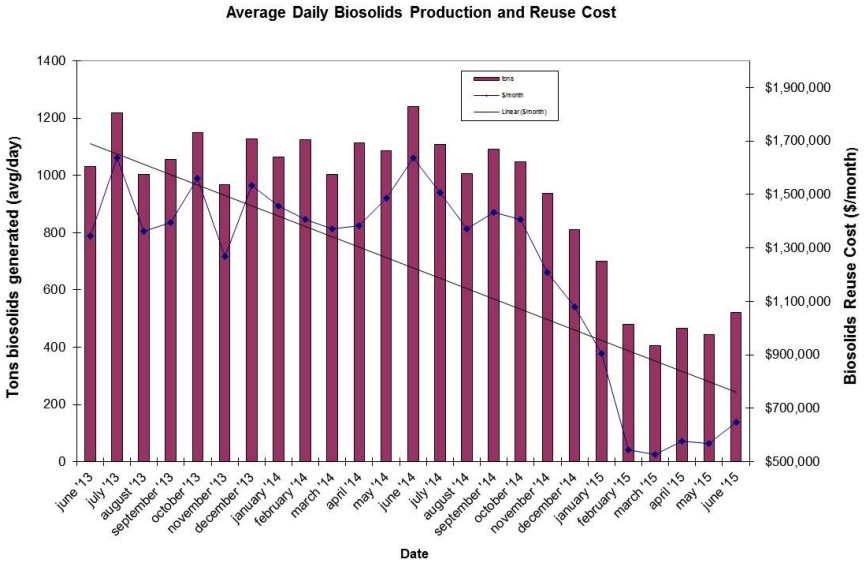


The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

June 2015 Resource Recovery Report

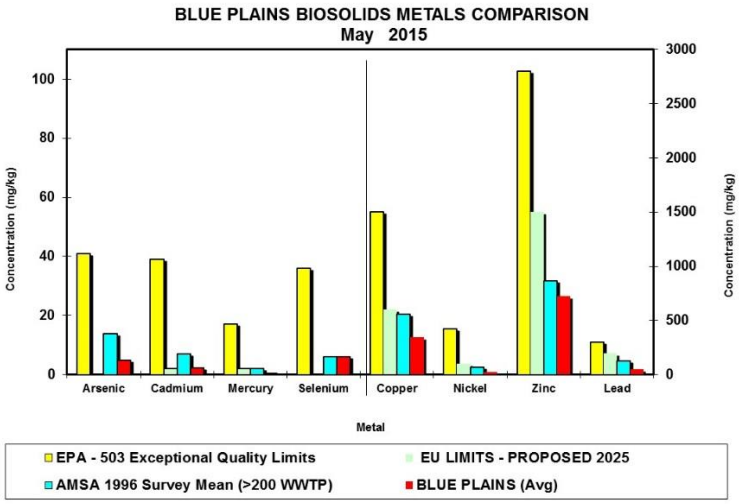
In June, biosolids hauling averaged 523 wet tons per day (wtpd). Of this total, 48 wtpd were lime stabilized Class B, and 474 wtpd were digested. The graph below shows the total hauling by contractor for the month of June. The average percent solids for the digested material was 32.1%. At the end of June the Cumberland County storage pad had approximately 210 tons (~25,000 tons capacity), Cedarville lagoon had approximately 0 tons of Blue Plains biosolids (~30,000 tons capacity), Goochland pad had 1400 tons, and Fauquier lagoon had 3107 tons (~15,000 tons capacity).





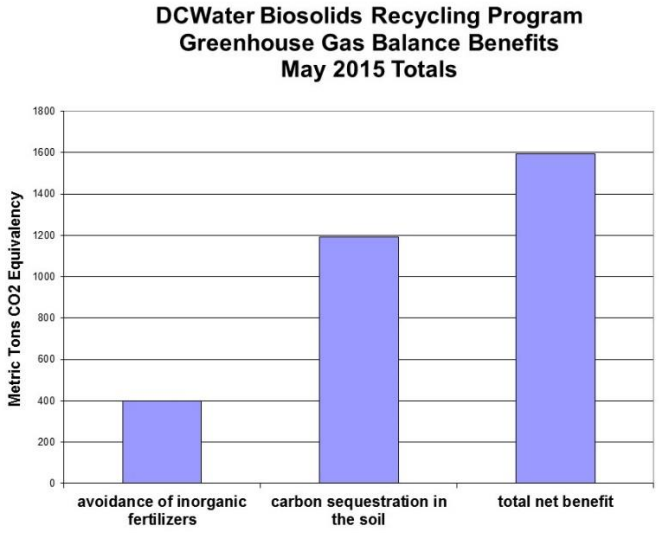
Please note the drop in biosolids management costs (second graph below, right vertical axis) due to the reduction in solids production since digesters came on line, and also due to the drop in fuel costs. In June, diesel prices averaged $3.12/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost in June for the two contracts (DC Water and WSSC) was $41.25/wet ton. For comparison, in June 2014 the average diesel price was $4.08/gal and the average contract cost was $43.87/wet ton.

The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of May 2015. 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.



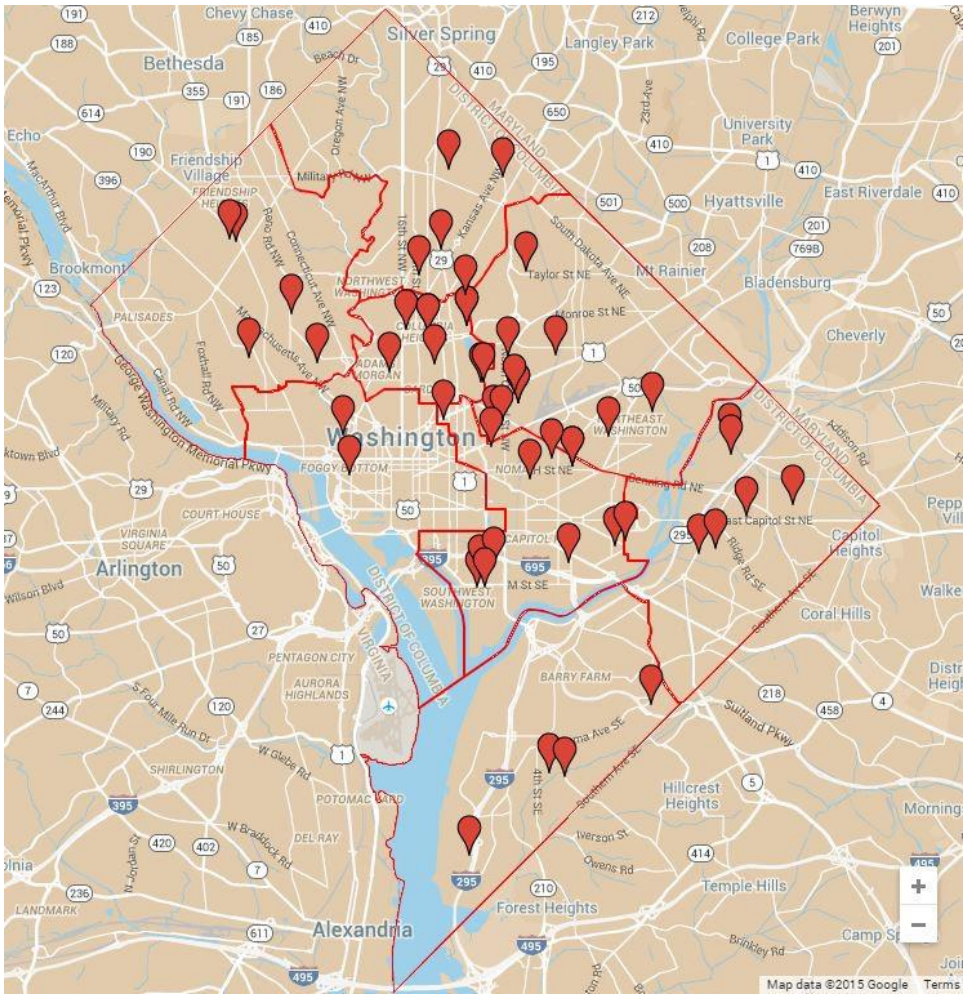
Environmental Benefits

The quantity land applied in May coming directly from the plant and from storage facilities equaled 22,917 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1594 metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 3,246,782 car miles off the road in the month of May (assumes 20 mpg, 19.4 lb CO_2 equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 142,330 metric tons CO_2 equivalent.



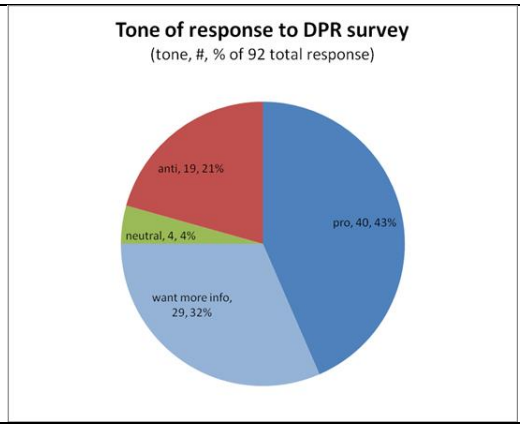
Highlights

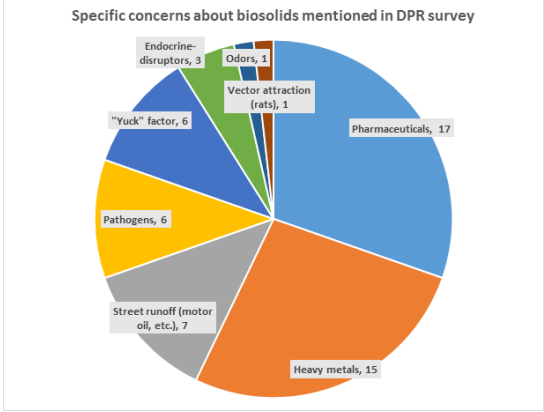
Staff has been donating compost to sister agencies, non-profits, and community gardens for the past two years, and has established urban reuse in DC in all 8 wards of the city. Please see the map below showing approximate locations of all sites using DC Water Class A compost. Staff initiated these donations and relationships in order to introduce, through the use of our Class A compost, the idea of using biosolids in an urban setting. In the past two years, staff used DC Water compost for tree planting, community gardens, and urban restoration sites. Reactions of those using the product has been enthusiastic and supportive, and the resulting sites have benefited from the use of our compost.



One such recipient of the product is DC Department of Parks and Recreation, for use on their community garden sites. The DPR coordinator has been supportive of the use of this asset in the service area, and has facilitated conversations and ultimately the use of the product on these garden spots. He recently sent out a survey to the gardening community, asking some questions about how they felt using a biosolids product. The results showed a mix of responses, including a majority in the middle that did not feel

strongly either way. As expected, there were some who were concerned with the practice and had specific questions they would like answered. As a result, staff worked with the office of External Affairs to complete a “biosolids fact sheet” answering questions about benefits and risks. Please see the results of the survey below, including a breakdown of the concerns.





As a result of the survey, one gardener vocalized concerns about the use of “toxic waste” in the gardens, and thought DC Water was using the community gardens as a “waste disposal method”. He brought his concerns to the DC City Council, and ultimately the local NPR station, WAMU, came to do a piece on the issue for a local show, Metro Connection. The story was balanced and took both perspectives seriously. Please click on the link below if you would like to hear the story.

http://wamu.org/programs/metro_connection/15/06/19/how_dc_water_is_trying_to_turn_sewage_into_fertilizer_for_your_food#.VYrEtndlB9g.mailto

Biosolids Reuse Map for May of 2015