

May, 2014

Biosolids Resource Recovery Monthly Report



DC Water

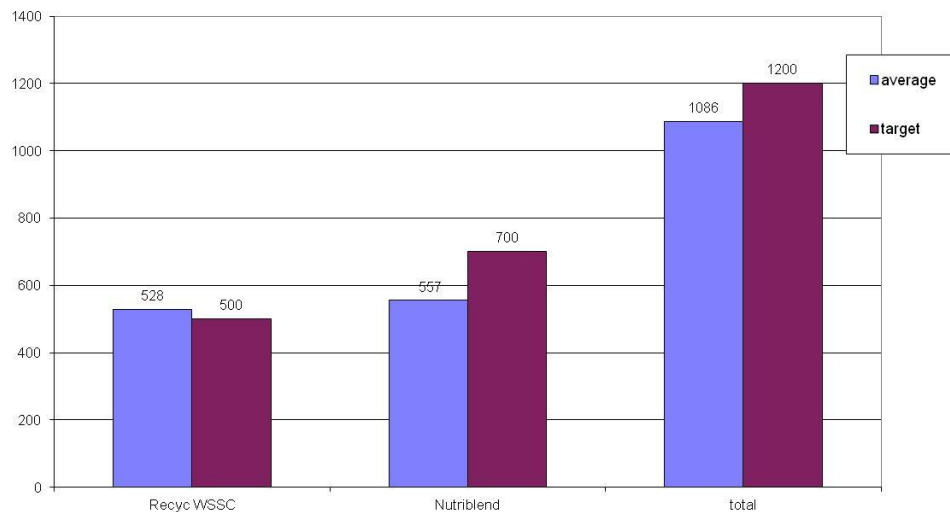
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The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery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

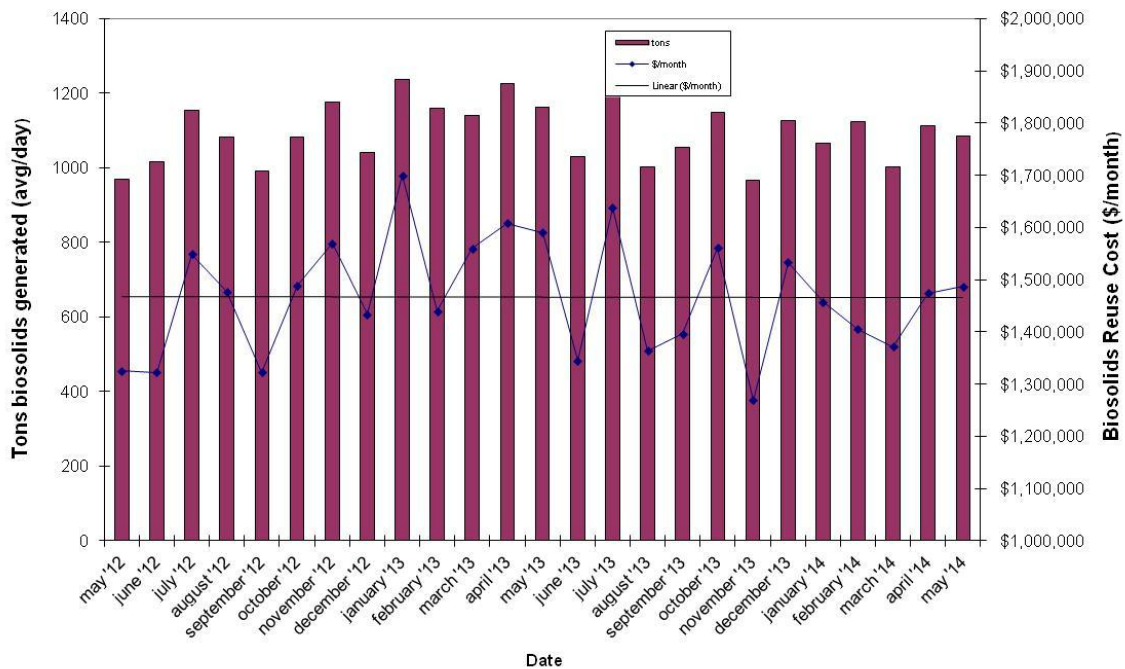
May 2014 Resource Recovery Report

In May, biosolids hauling averaged 1086 wet tons per day. The graph below shows the hauling by contractor for the month of May. Average % solids for the unlimed cake was 28.7%. Average lime dose for the month was 18.9%. 48 tons went to composting. At the end of May the Cumberland County storage pad had 18,767 tons (~25,000 tons capacity), and the Cedarville lagoon had approximately 0 tons (~30,000 tons capacity).

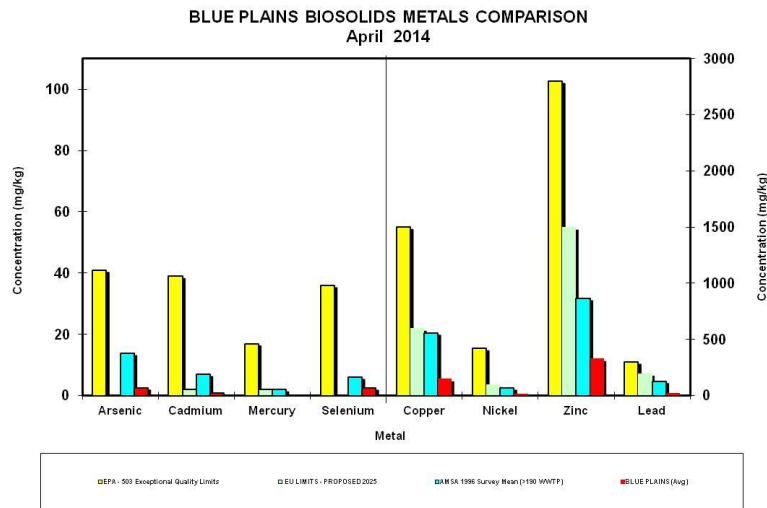
Average Daily Hauling by Contractor for April 2014



Average Daily Biosolids Production and Reuse Cost



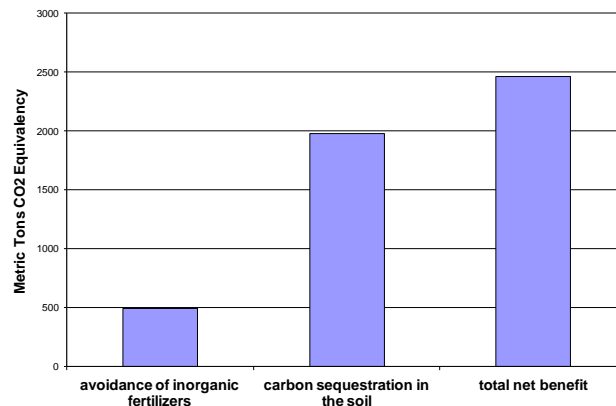
The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of April 2014. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (EU) 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 April coming directly from the plant and from storage facilities equaled 39,561 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 2464 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 5,020,103 car miles off the road in the month of April (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2006 is 129,641 metric tons CO₂ equivalent.

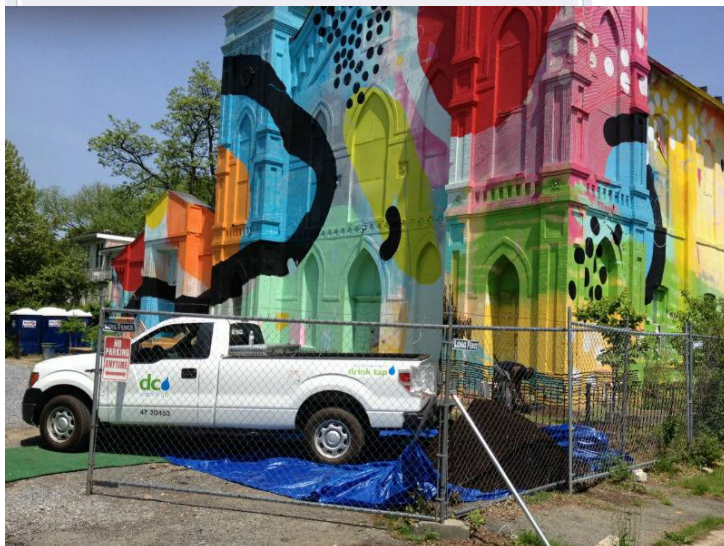
DCWater Biosolids Recycling Program Greenhouse Gas Balance Benefits April 2014 Totals



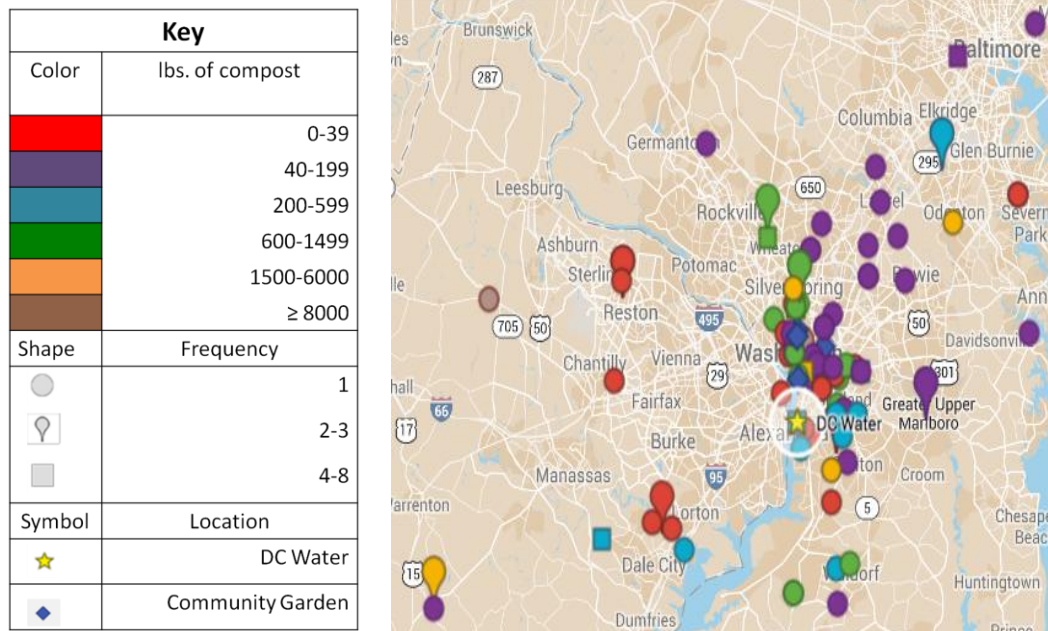
May Highlights

DC Water Biosolids Compost Use

In the past 12 months, staff has established relationships with several community gardens in the DC Water service area, and has successfully implemented an employee compost give-away program. The community is very pleased with the product, and demand is growing. Staff is promoting the use of this biosolids product in the service area in anticipation of having a Class A blended soil product after the digesters come on line. We are developing products at Va Tech and with local soil blenders to try and get some of our biosolids resource used within the DC Water service area, for gardening, tree planting, green infrastructure, etc.



The map below shows the quantities of biosolids used in different area zip codes, from both the employee give-away program and from outreach to the community.



MDE Biosolids Use Regulations

Maryland Department of the Environment (MDE) has newly revised biosolids regulations (effective May 26, 2014). Two issues could be viewed as problematic:

Stockpiling – Land appliers face extreme restrictions on stockpiling and land applying biosolids on farm fields. Under the terms of MDA’s 2012 regulations, as of 2016, significant POTWs (design flow capacity greater than 0.5 mgd) will be barred from land applying biosolids during the winter, and a similar ban applies to non-significant POTWs in 2020. Restrictions on fall applications are already in place.

MDE’s new biosolids regulations do nothing to help generators manage these materials during the fall and winter. MAMWA asked in its formal comments that MDE allow temporary stockpiling of biosolids for up to 180 days (to cover most of the fall and winter period). MDE has refused to allow Class B stockpiling, however the Cedarville lagoon is considered a permanent storage facility and is not affected by this “stockpiling” restriction, intended for farm sites. Further, MDE’s new regulations only allow Class A stockpiling if the materials are less than 60% in moisture content (unachievable for most Class A cakes). The State has provided no good answers regarding future options other than construction of permanent storage (highly unlikely), transportation out-of-state, or moving to technologies that meet the moisture content requirements.

Generator Fees – MDE’s final regulations allow the Department to change the generator base fee rate annually “to provide adequate revenue to cover” its “anticipated costs of monitoring and regulating sewage sludge utilization activities and anticipated costs for program implementation” without any cap on the potential increase. There is no requirement for MDE to go through a public process to change the base fee rate. In contrast, the enabling statute states that the Department’s regulations “...shall provide

for public input into the development of fee schedules.” ENV §9-230. Staff questions whether MDE can or should circumvent a public process to fund its program.

Dr. Diriker at Salisbury University is conducting Stakeholder Panels to discuss this issue, and WSSC has representation on the panel (Gary Grey). In anticipation of participation in these panel sessions, staff will gather cost and benefit data. Input from contractors, previous MAMWA testimony and comments on cost, General Assembly materials, Member survey research, and land application data will be included. Staff will help develop and submit this information to the panel, and will help review panel documents.

Map of Blue Plains Biosolids Applications and Agricultural \$'s for April 2014

