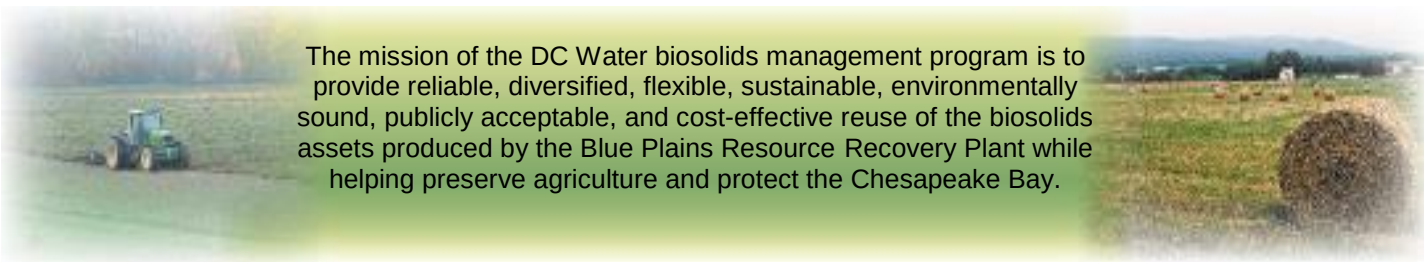
August, 2016

Biosolids Resource Recovery Monthly Report

DC Water

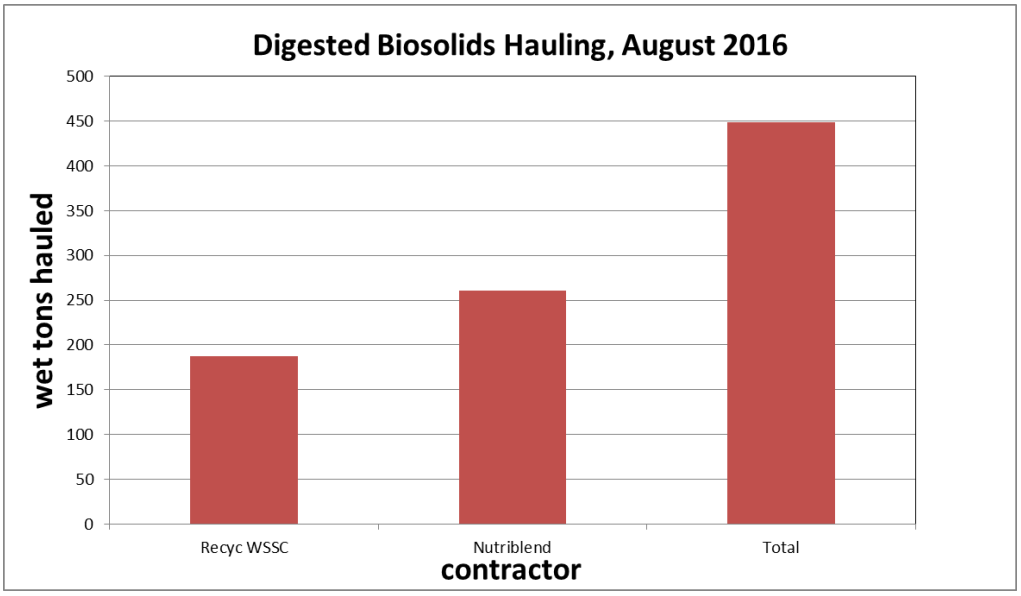
Resource Recovery Division
5000 Overlook Avenue SW
Washington, DC 20032
202-787-4329; 202-787-4226 (fax)
cpeot@dcwater.com

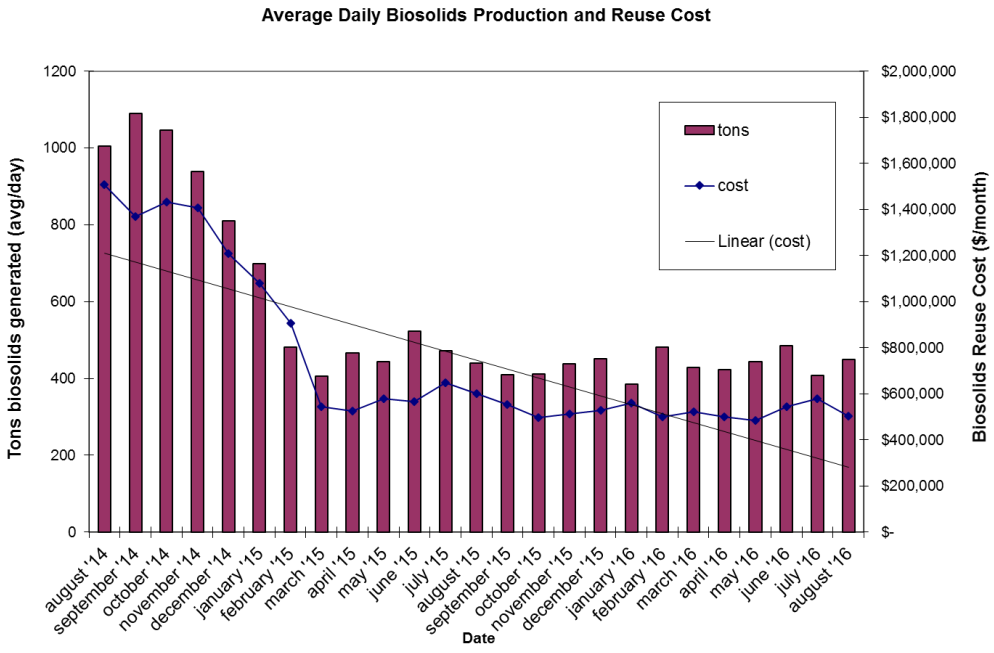


The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

August 2016 Resource Recovery Report

In August, biosolids hauling averaged 449 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of August. The average percent solids for the digested material was 31.1%. At the end of August the Cumberland County storage pad had approximately 2000 tons (~25,000 tons capacity), Cedarville lagoon had approximately zero tons of Blue Plains biosolids (~30,000 tons capacity), Goochland pad had zero tons, and Fauquier lagoon had 140 tons (~15,000 tons capacity).

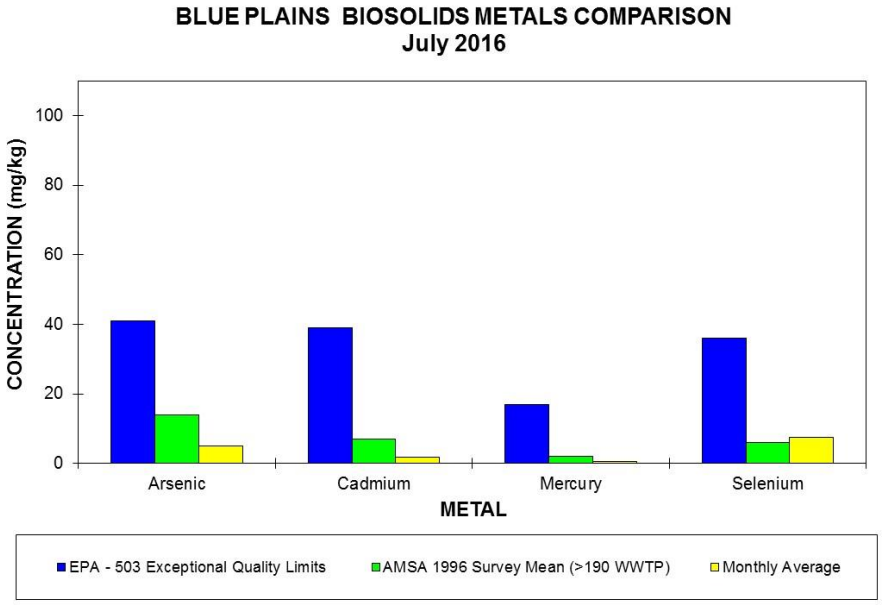


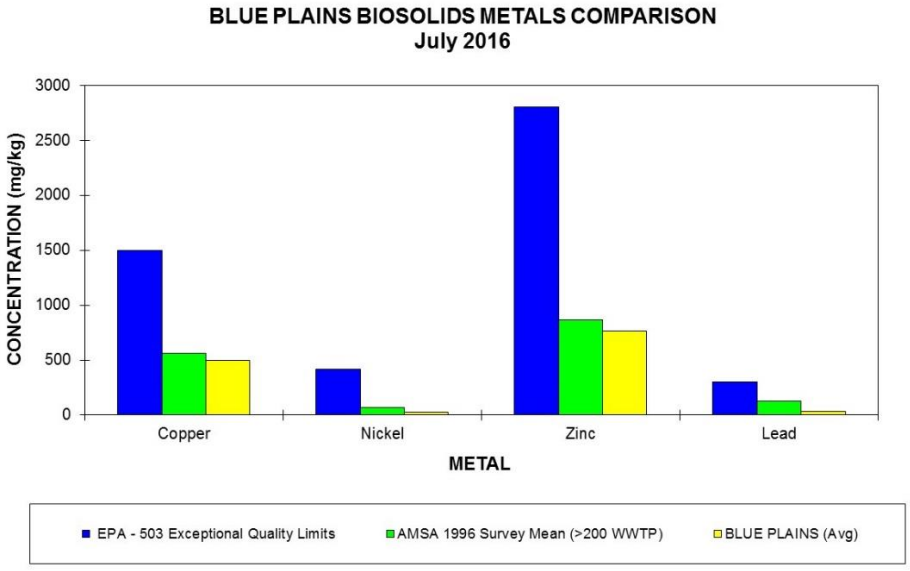


In August, diesel prices averaged $2.51/gallon and with the contractual fuel surcharge the weighted average biosolids reuse cost was $39.60/wet ton.

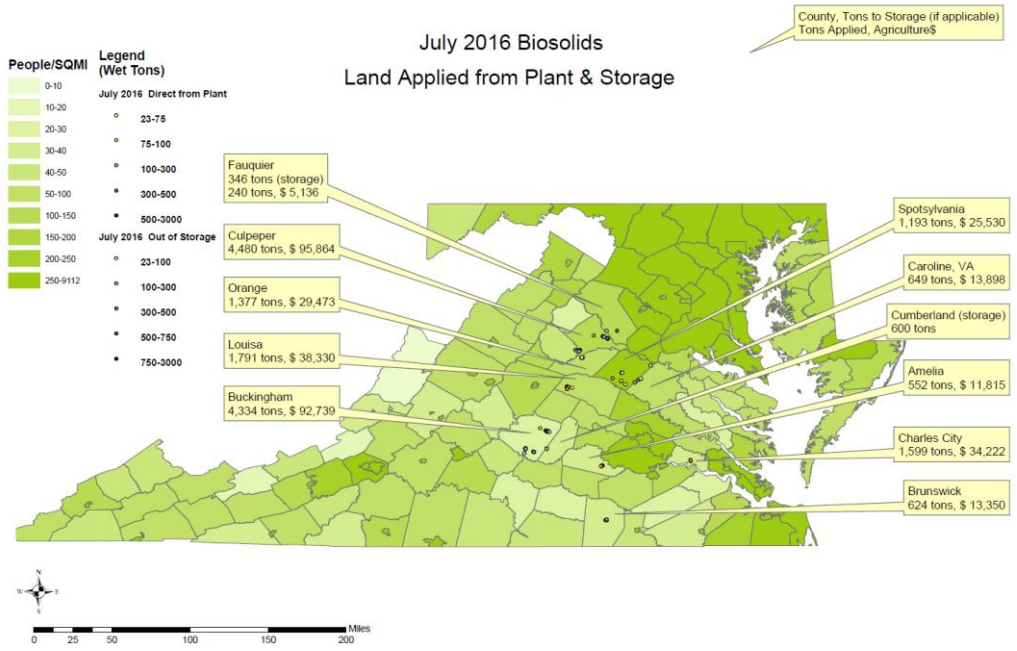
Product Quality

The graph below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of July 2016. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits and the national average.



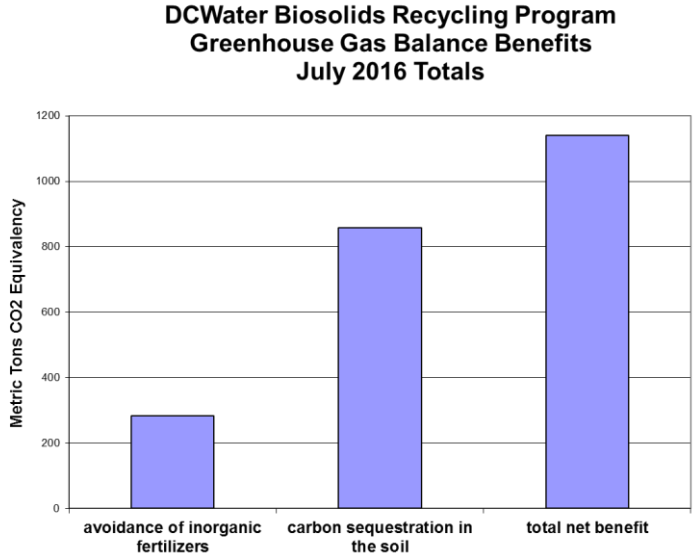


Biosolids Applications and Agricultural $'s for July 2016



Environmental Benefits

The quantity land applied in July coming directly from the plant and from storage facilities equaled 16,839 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1141 metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 2,324,460 car miles off the road in the month of July (assumes 20 mpg, 19.4 lb CO_2 equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since, January 2006 is 148,662 metric tons CO_2 equivalent.



Highlights

Bloom Marketing Update

Staff made the first sales of Bloom this past month, a delivery of one truck each of cured Bloom to a middle school in DC and a church in Bethesda, both for the purposes of landscaping. More to come in the future – we are working with landscapers and blenders in MD and DC, determining their needs for fall and spring planting, and setting up for orders. Staff also has commitments from several DC departments to take the material for landscaping and tree planting. Staff is working to fill these orders and will have quantity estimates in the coming month.

Several small to large regulatory hurdles stand in the way of a full Bloom marketing launch at the moment. Staff is working through these with the state regulators. Being the first technology of its kind implemented in North America, the regulators are using an abundance of caution in issuing the distribution and marketing (D&M) permits. We currently have Bloom D&M permits in MD and DC, and are awaiting clarification on some regulatory language in VA before we accept the final D&M permit there. Staff organized a response to these issues in VA through the Virginia Association of Municipal Wastewater Agencies (VAMWA) who wrote to VA DEQ on the members behalf, seeking clarification on language regarding distribution to farmers for land application. Staff decided not to accept the proposed D&M permit from VA DEQ so as not to set the wrong precedent for ourselves and those coming after us. We are considerably closer to a full marketing program in MD, and can freely distribute to most anyone in the state. One exception is soil blenders, identified as a large part of the market in MD, who must obtain a “Letter of Authorization” (LOA) from Maryland Department of the

Environment (MDE) in order to blend biosolids. In the past, blenders were required to apply for and obtain a full treatment permit if they received biosolids. The biosolids community successfully negotiated the need for a full treatment permit out of the newest set of regulations, with the compromise position that blenders need only an LOA if they receive Class A biosolids. The LOA process is much simpler than obtaining a full treatment permit. DC Water staff applied for an LOA for a facility it is considering, and is awaiting approval. MDE layered on some additional requirements not in the regulations, so again, DC Water is cautiously negotiating this so as not to set an unnecessarily strict precedent. We expect to have our first LOA for a blending facility within a month. This will serve as a template for other facilities, and will greatly open up the market. We currently have three blenders ready to receive materials, pending agreement on the process and approval of the LOA.

Proactive Outreach Success

A few months ago, staff made a presentation at the World Watch Institute about the DC Water biosolids program and the development of Bloom. The presentation was very well received, and a representative from WWI posted a blog about the presentation and our program entitled “flushing away misconceptions about biosolids”, a very positive look at what we do. Please see the article at the link below.

http://blogs.worldwatch.org/flushing-away-misconceptions-about-biosolids/

After the presentation, a member of the audience approached the DC Water presenter and with safety concerns about the use of biosolids, especially at schools. She was based in DC and worked for a group called the Organic Consumers Association (OCA) based in Minnesota. The OCA had been responsible 6 years earlier for coordinated protests against the City of San Francisco’s biosolids compost program. These protests led to the eventual shut down of a successful program, one which has never started up again.

Staff invited the OCA representative to the plant for a meeting to discuss their concerns, which largely revolved around the use of the word “organic” on the bags leading, in their mind, to consumer confusion. Although we do not use the word “organic” to mean “pure”, but rather to indicate carbon content, staff agreed not to use the word organic on any packaging, rather emphasizing “a good source of carbon” in an effort to avoid confusion. Staff offered samples and analysis to OCA (they took both) for their own use and testing. The conversation was constructive, and we learned this week that OCA has decided not to wage a campaign against Bloom, and that they appreciate our commitment to transparency and innovation. This is an example of proactive outreach and a corresponding positive outcome.