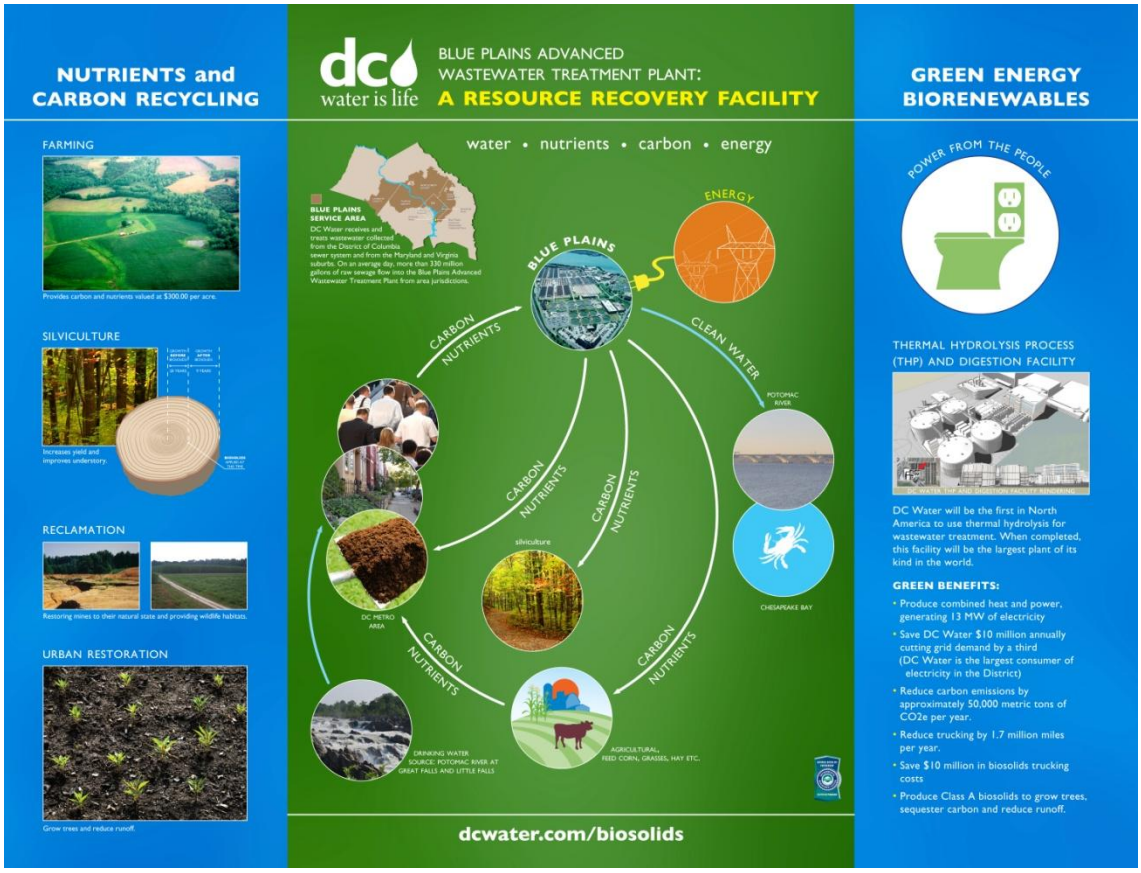
January, 2014

Biosolids Resource Recovery Monthly Report



DC Water

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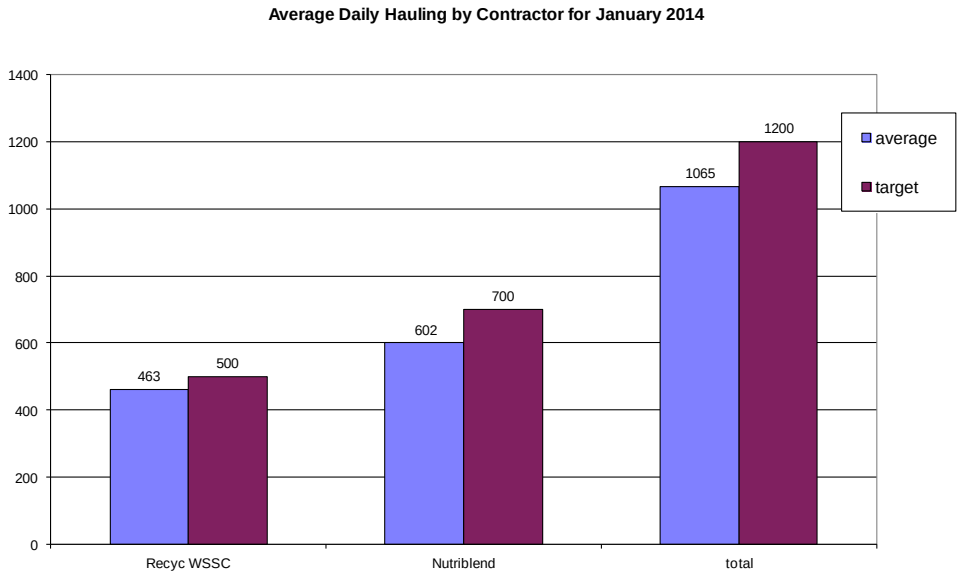
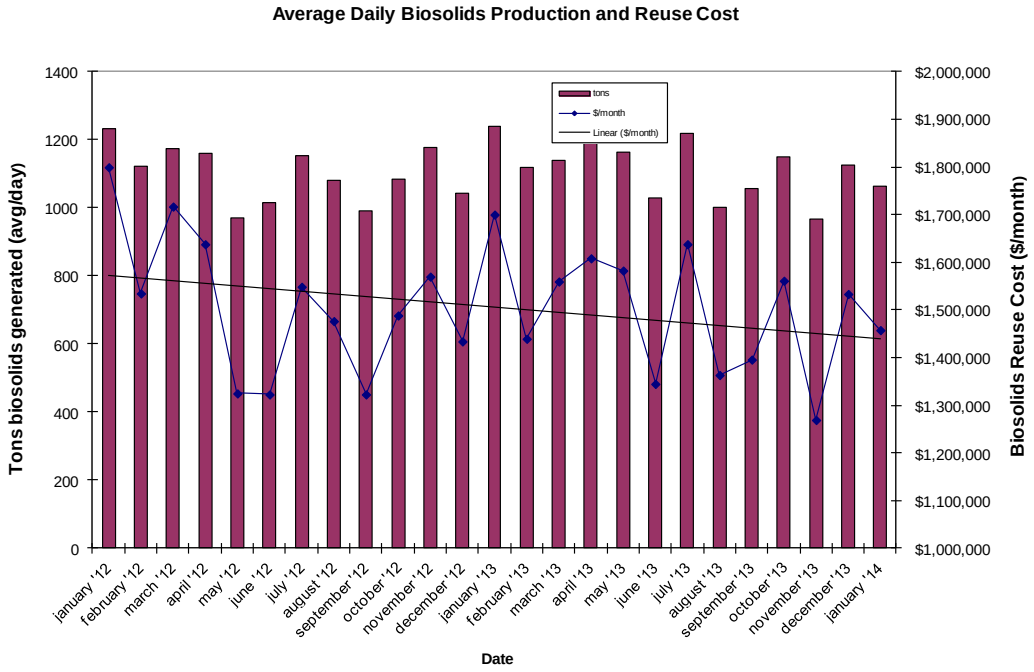
The mission of the DC Water biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective reuse of the biosolids assets produced by the Blue Plains Resource Recovery Plant while helping preserve agriculture and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

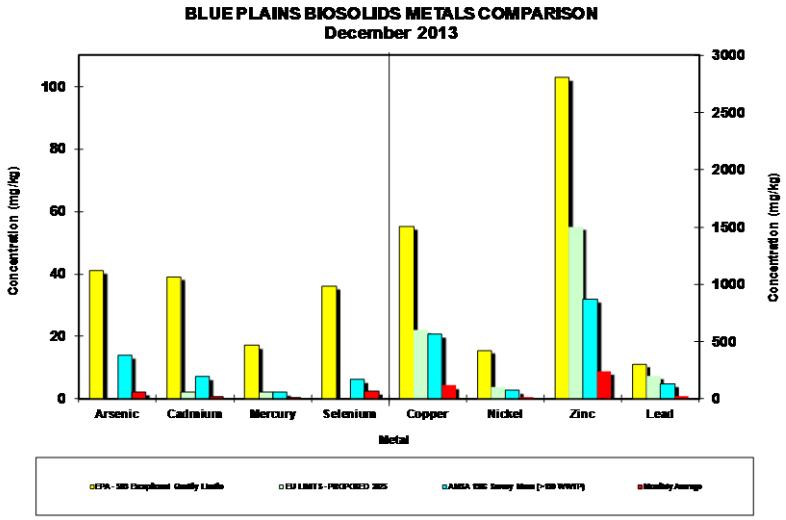
January 2014 Biosolids Resource Recovery Report

In January, biosolids hauling averaged 1065 wet tons per day. The graph below shows the hauling by contractor for the month of January. Average % solids for the unlimed cake was 25.5%. Average lime dose for the month was 23.5%. 278 tons went to composting. At the end of January the Cumberland County storage pad had 14,277 tons (~25,000 tons capacity), and the Cedarville lagoon had approximately 14,277 tons (~30,000 tons capacity).



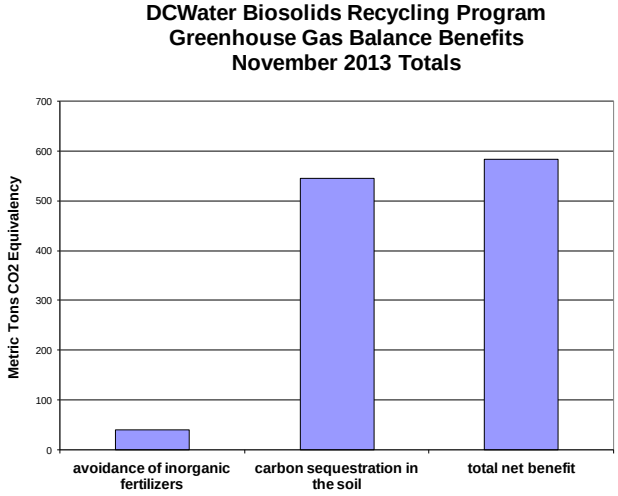


The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of December 2013. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the national average levels surveyed in 1996, and the European Union (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 December coming directly from the plant and from storage facilities equaled 7361 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 584 metric tons CO_2 equivalent avoided emissions. This is equivalent to taking 1,189,837 car miles off the road in the month of December (assumes 20 mpg, 19.4 lb CO_2 equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2006 is 95,146 metric tons CO_2 equivalent.



January Highlights

Staff went to our contracted compost facility in Spottsylvania County to discuss product and feedstock quality. Reports were coming back to the Biosolids Work Group indicating that the feedstock we were sending was too wet. The site visit illustrated the need for better biosolids product quality assurance. Staff communicated this to crane operators and dispatchers and assured Spottsylvania County that we would not send relatively wet product to their facility.

Staff met with Hiram Tanner to discuss the feasibility of a grease collection program for restaurants. Hiram is putting together a task force to explore this idea in an effort to keep grease out of the sewers and prevent or limit blockages. Hiram is interested in having this resource used as a green energy source. Staff indicated that the digesters will not take any outside wastes until such time that we are comfortable running them on the intended feedstock (sewage solids), likely at least two years after start-up.

Staff finalized a scope of work for a research project with Bucknell University to study the effects of blending slurried food waste with our sewage solids for introduction into the digesters. Staff has established a relationship with a solids waste hauler to received slurried food from a facility in California. This hauler wished to establish a slurry facility in DC, and is looking for outlets for the product. There is interest in bringing it to the Blue Plains digesters. Staff indicated that this will not occur until such time that we are comfortable with the operations of the digesters on the design intended material. This study will examine several mix ratios through a bench scale thermal hydrolysis and digester at Bucknell, and will examine the operational effects on the process.

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