March, 2008

Biosolids Division Monthly Report

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District of Columbia Water and Sewer Authority

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The mission of the District of Columbia Water and Sewer Authority biosolids management program is to provide reliable, diversified, flexible, sustainable, environmentally sound, publicly acceptable, and cost-effective management of biosolids produced by the Blue Plains Advanced Wastewater Treatment Plant while helping preserve agriculture and protect the Chesapeake Bay.

March 2008 Blue Plains Biosolids Report

In March, biosolids hauling averaged 1210 wet tons per day. The graph below shows the hauling by contractor for the month of March. Average % solids was 24.1%, and average lime dose was 21.1%. A second graph shows average tons recycled per day for the last 24 months.



Average Daily Hauling by Contractor for March, 2008





The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of February 2008. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and even the proposed 2025 European Union (EU) limits.



Environmental Benefits

In February of 2008 staff sent 28,331 wet tons of biosolids from the plant. In addition, 6729 wet tons of material came out of storage in February. No tonnage went to landfills in February. The graph below shows the benefits as compared to landfilling all the biosolids in a non-energy recovering landfill. Taking into account the fuel required to transport biosolids to the field, the net benefit is 2614 metric tons CO_2 equivalent avoided emissions. The graph shows the benefit (carbon credit) of the sequestration, the energy savings due to avoiding conventional fertilizer use, and the total of the two. This is equivalent to taking 5,929,221 car miles off the road in the month of February (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).



HIGHLIGHTS

Staff tracked Maryland House Bill 1529, which was designed to change the way localities permitted biosolids reuse sites, including land application sites. The bill was written to disallow any reuse site unless compatible with zoning in the area. The bill was pulled from the committee and not forwarded to the full House for a vote. The parallel bill in the Senate was pulled as a result of this.

Staff opened and screened the first bag of compost at the small scale temporary in-vessel composing site at Blue Plains. The product looks good and has a low odor. Staff met with urban foresters in DC to determine how to best use the material in the District. Staff's contacts plan to plant 5000 trees in the city each year, with the need for approximately 100 lbs of compost per tree. Staff has agreed to supply some of this material in an effort to use increasing quantities of the Blue Plains biosolids (compost) within the borders of the District.



The Associated Press (AP) published a story in March about biosolids use on a farm in Augusta Georgia 18 years ago, where the farmers claimed their soil was ruined and their cattle killed. The AP story was not thorough, and in fact it had several egregious omissions. The story is very long, but suffice it to say that investigations showed no connection between the biosolids and the condition of the farm. Other farmers in the region used and continue to use the material without complaint. The story filtered to the Virginia DEQ Biosolids Expert Panel, raising questions about the safety of biosolids use. Staff prepared a letter outling the facts of the case and the missing information.

Staff spent a day at Lynchburg College lecturing to science students about biosolids. The students had read the AP story published in their local paper and at first were very skeptical. Staff received very positive comments back regarding the appreciation of hearing more details regarding the story and the use of biosolids.

Staff sent samples to a researcher at VA Tech for use in his sludge-to-oil pilot plant. The concept is that through intense heat and pressure, the organic matter in sludge can be converted to a crude oil-like substance. Initial tests were encouraging, although we have not examined any of the economics of the project. Staff sent the samples at the suggestion of the members of the Virginia DEQ Biosolids Expert Panel. This is very similar to work that Staff funded at Bucknell University in FY07.

Map of Blue Plains Biosolids Applications and Agricultural \$'s for February 2008



February 2008 Biosolids