April, 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.

April 2008 Blue Plains Biosolids Report

In April, biosolids hauling averaged 1267 wet tons per day. The graph below shows the hauling by contractor for the month of April. Average % solids was 24.7%, and average lime dose was 16.6%. A second graph shows average tons recycled per day for the last 24 months.



Average Daily Hauling by Contractor for April, 2008

Average Daily Biosolids Production



The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of March 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 March of 2008 staff sent 37,916 wet tons of biosolids from the plant. In addition, 5535 wet tons of material came out of storage in March. No tonnage went to landfills in March. 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 2779 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 6,303,575 car miles off the road in the month of March (assumes 20 mpg, 19.4 lb CO2 equivalent emissions/gallon gas – EPA estimate).



HIGHLIGHTS

Last month the second in a series of AP stories on biosolids use appeared in local and national newspapers. The story concerned a study conducted in Baltimore in which biosolids compost was used in urban lawns to limit the availability of lead, and therefore limit the risk of children in the neighborhood. The research was conducted by John's Hopkins University and USDA, and was published and well accepted in the scientific community. The article levied accusations of racism and likened the work to that done in Nazi concentration camps. John's Hopkins released a response to the claims. Staff has all the articles, the papers associated with the research, and quotes from all parties involved that clearly show the positive results of the research leading up to the tests. The material used for the project was a Class A biosolids composted material, similar to that available for sale in bags in many areas. This material has been used on suburban and urban lawns for years. Biosolids compost has been used on the White House lawn, on professional sports stadium fields, and on numerous golf courses, to name a few places. Its use is widely accepted as positive and beneficial.

Staff attended and participated in the VA DEQ Expert Panel meeting this past month. The panel discussed heath issues and is contemplating the use of the WERF biosolids incident response protocol developed last year as part of the biosolids research summit high priority list.

Staff met with Dr. Erik Ervin from VA Tech to discuss the results from ongoing research looking at the use of biosolids for drought resistance on agricultural crops. Dr. Ervin has conducted greenhouse trials showing the effect of naturally occurring auxins (essential plant hormones) present in the biosolids from the degradation of proteins. These auxins promote root growth and help make the plants much more efficient in their use of water, therefore helping crops through stressful conditions such as drought. Staff is supporting field trials beginning this summer.

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

