## March 2004 General Managers Report – Biosolids Management

In March, biosolids hauling averaged 1556 wet tons per day. The graph below shows the hauling by contractor for the month of March. A second graph shows the average daily production per month for the previous 12-month period.



Average Daily Hauling by Contractor for March, 2003





The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of February 2004. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits.





## HIGHLIGHTS

Staff delivered a brief presentation to the Blue Plains Technical Committee on status of current research projects. Current research includes work on odors, pathogen reduction, phosphorus runoff, metals mobility, odor modeling using plant process parameters, increasing yield and fending off plant stress (drought, plant disease, etc) with biosolids use, Stafford Airport reclamation, tree farming, and others. Staff committed to putting

together a biosolids management plan showing expected reuse options and diversification efforts up to and through the construction and operation of the digesters.

The DCWASA Board of Directors approved a plan to modify the design of the digesters in order to allow operation in a mode that will produce a Class A biosolids product. This will allow for further diversification of options and potentially the marketing of a blended soil product. Staff will begin to explore marketing options in preparation for the production of Class A product.

Staff met with researchers regarding the research project looking at correlating biosolids odors to plant process parameters. During this project, researchers from the U of MD have developed a model that examines process data and is able to predict the odor intensity of the biosolids product. Further testing is needed to validate the model, but initial tests indicate that it is fairly accurate, which will allow staff to predict and possibly prevent odorous events. If staff has notice that odorous biosolids are to be produced a day later, staff can coordinate with contractors to keep biosolids off of sensitive lands and avoid nuisance complaints. This proactive system will be far superior to the reactive system employed at this time.

Staff attended the Biosolids Use Information Committee (BUIC) meeting in Charlottesville, VA to discuss regulatory issues and hear a presentation of biosolids safety by Dr. Rufus Chaney of USDA. Staff used this opportunity to meet with citizens and a reporter from Northumberland and Lancaster Counties. There is opposition and an ongoing debate in these counties over the use of biosolids and in particular the use of biosolids on farms in areas zoned R-1. Based in part on information provided by staff and by our inspectors, the reporter wrote a balanced article, looking at both sides of the issue.

Staff met with representatives of the Pennsylvania Department of Environmental Protection and Department of Mining to discuss the possibility of demonstrating the use of high lime biosolids to remediate mine land in PA. All agreed to continue discussions.

Staff invited area regulatory and municipal personnel for a presentation by researchers from Virginia Tech on the availability of metals from historically heavily loaded biosolids land application sites. Research showed that the metals did not move off site after 20 years. Leaching of trace metals and removal by plant uptake does not appear to be significant routes of removal from the site. As an example of the soil profile, the graph below shows copper concentrations in the top and lower layers of the soil.



## Map of Blue Plains Biosolids Applications and Agricultural \$'s for February 2003

