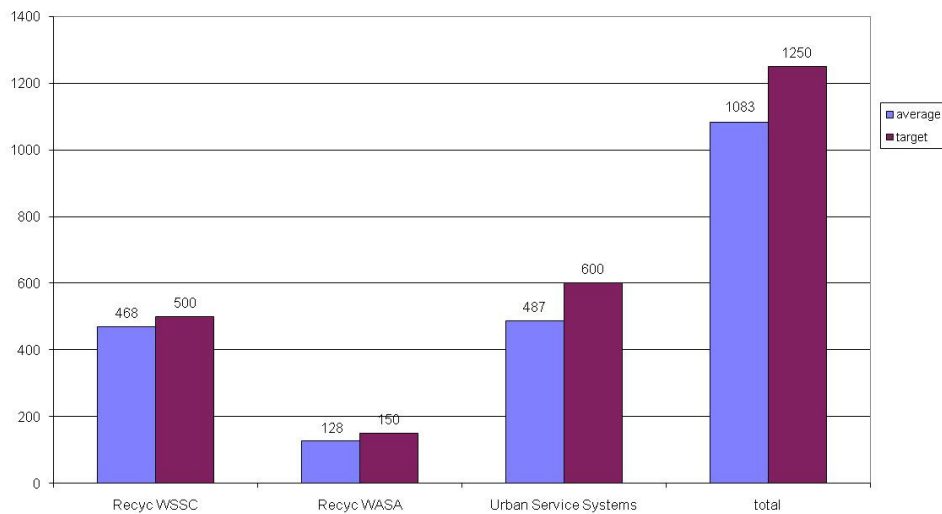


December/January 2010/11 Biosolids Division Report

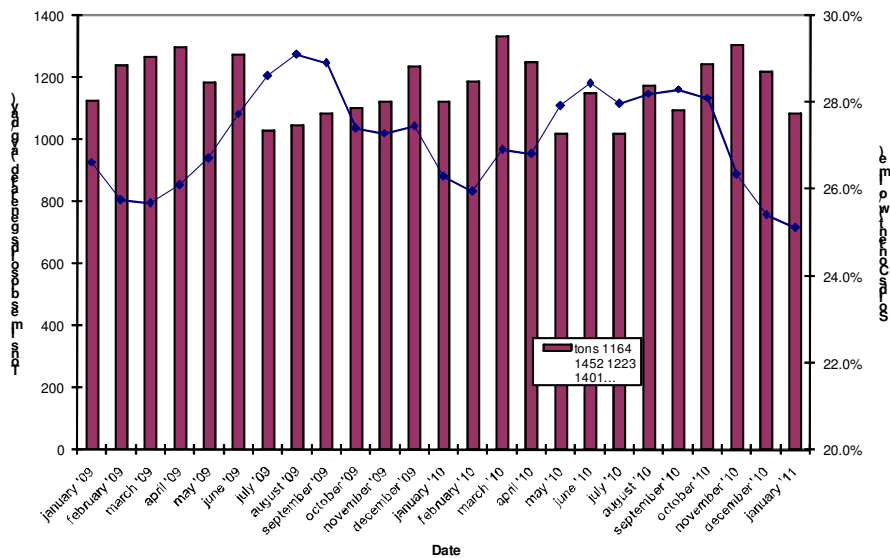
In January, biosolids hauling averaged 1083 wet tons per day. The graph below shows the hauling by contractor for the month of January. The second graph shows average tons recycled and solids content for the last 24 months. The average solids percentage for January was 25.1%, and average lime dose was 17.4%.

In January DC Water again shipped biosolids to the McGill Compost Facility in Waverly, VA. This is done through the Urban Service Systems contract. In January a total of 161 tons went to compost production. At the end of January, the Cumberland County storage pad had 8835 tons (~25,000 tons capacity) and the Cedarville lagoon had 10,320 tons (~30,000 tons capacity).

Average Daily Hauling by Contractor for January, 2011

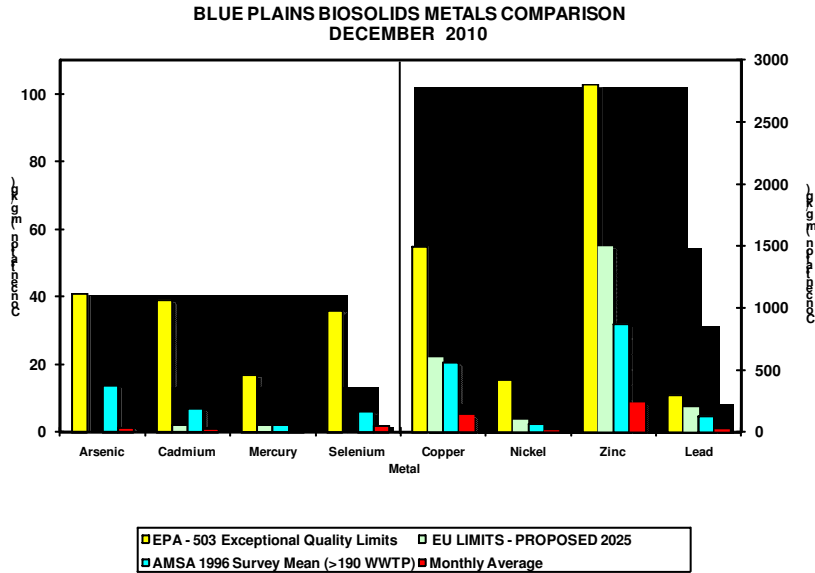


Average Daily Biosolids Production and Solids Content



The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for

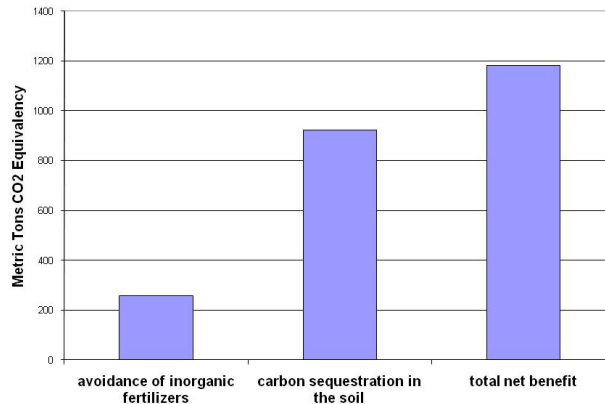
the month of December 2010. As can be seen in the graphs, the Blue Plains levels are considerably below the regulated exceptional quality limits, the AMSA average levels surveyed in 1996, and the European Union (EU) limits. The EU limits are more conservative than the USEPA limits, and Blue Plains biosolids metals content is lower than the EU standards as well.



Environmental Benefits

Zero tons of biosolids went to landfills in December. The tonnage land applied coming directly from the plant and from storage facilities equaled 22,201 tons of biosolids land applied in December. Of this, 522 tons went to composting. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 1182 metric tons CO₂ equivalent avoided emissions. This is equivalent to taking 4,163,707 car miles off the road in the month of December (assumes 20 mpg, 19.4 lb CO₂ equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since January, 2007 is 70,215 metric tons CO₂ equivalent.

**DCWASA Biosolids Recycling Program
Greenhouse Gas Balance Benefits
December 2010 Totals**



January Highlights

Last month, staff met with USDA officials to discuss our ongoing research efforts in the field of biosolids nutrient recycling, energy crop production, forestry application, and drought resistance properties of biosolids. DC Water has several ongoing, separate research projects with Va Tech and U of MD to look at the using land applied biosolids to grow crops for fuel and energy. The benefits of this approach include sequestered carbon, rural economic development, and revenue generation. Staff shared some published papers with USDA staff, and will continue to explore if there are future funding opportunities.

Staff met with District DOT staff to discuss using the finished biosolids compost for street tree planting and restoration projects. DDOT staff identified two projects to use for a demonstration, both with the purpose of restoring green space in the District. DC Water staff arranged for a delivery of 30 CY of compost in a roll off bin to a staging area that DDOT uses for tree and material storage. Restoration efforts are to begin in the next month, weather permitting. The purpose of these projects is to demonstrate the use of this product in tree planting and restoration projects, with the aim of building a market for the post-digestion product, which will be similar in nature and consistency once blended with sawdust and sand. In addition to this, staff hired an expert to help with a compost use in greenroom feasibility study for demonstrated use at Blue Plains. This, of course, serves the purpose of not only material reuse, but runoff reduction.

On January 18 and 19, staff hosted an independent auditor to examine the progress of the biosolids program toward continued certification with the National Biosolids Partnership Environmental Management System (EMS) program. This is the first interim audit after we had a full reverification audit last year, completing our first 5-year cycle with a successful reverification. This year's audit determined that:

- The DC Water biosolids management system is generating positive outcomes, particularly in energy reduction initiatives.
- No major nonconformances and four minor nonconformances were found during this audit with respect to the audit criteria. Approved corrective action plans are in place to address the nonconformances.
- All nonconformances from prior third party audits have been effectively corrected.
- Opportunities for improving the effectiveness of the management system were noted.

Four minor nonconformances with respect to requirements of the NBP EMS Elements were found during this audit. DC Water has prepared corrective action plans to address each nonconformance and the Lead Auditor has reviewed those plans. Effective correction of the nonconformances will be verified during the next Third Party Audit.

The nonconformances found are listed below.

Minor Nonconformance JS / 11-01 EMS Element 2 requires that the Biosolids Management Policy shall be incorporated into biosolids programs, procedures and practices. The DC Water Biosolids Policy refers to the "Principles of Good Conduct"; however it is not clear what these are or how they are incorporated into the management system.

Minor Nonconformance JS / 11-02 EMS Element 3 requires the organization to identify and document its critical control points for biosolids management activities. DC Water's definition of "critical control points" and "operational controls" states that they address legal, quality and public acceptance requirements, however the written identification of critical control points and operational controls does not clearly reference quality or public acceptance requirements.

Minor Nonconformance JS / 11-03 EMS Element 14 requires the organization to investigate nonconformances and noncompliances, identify the cause and take action to correct / prevent the nonconformance. The MES report of a noncompliance incident that occurred 3/25/10 did not indicate cause(s) or corrective / preventive action taken

Minor Nonconformance JS / 11-04 EMS Element 17 requires the organization's management to review the biosolids environmental management system and its performance relative to policy commitments. Workgroup meetings and General Manager Reports, considered as part of the Management Review process have not addressed the extent to which Biosolids Policy commitments to the Code of Good Practice were met in 2009 & 2010

Based on results of this audit, DEKRA continues our Verification that the DC Water biosolids management system meets the expectations and requirements of the NBP EMS Elements. The auditor recommends continuing certification within NBP's Biosolids Management (EMS) Program.

Map of Blue Plains Biosolids Applications and Agricultural \$'s for December 2010

