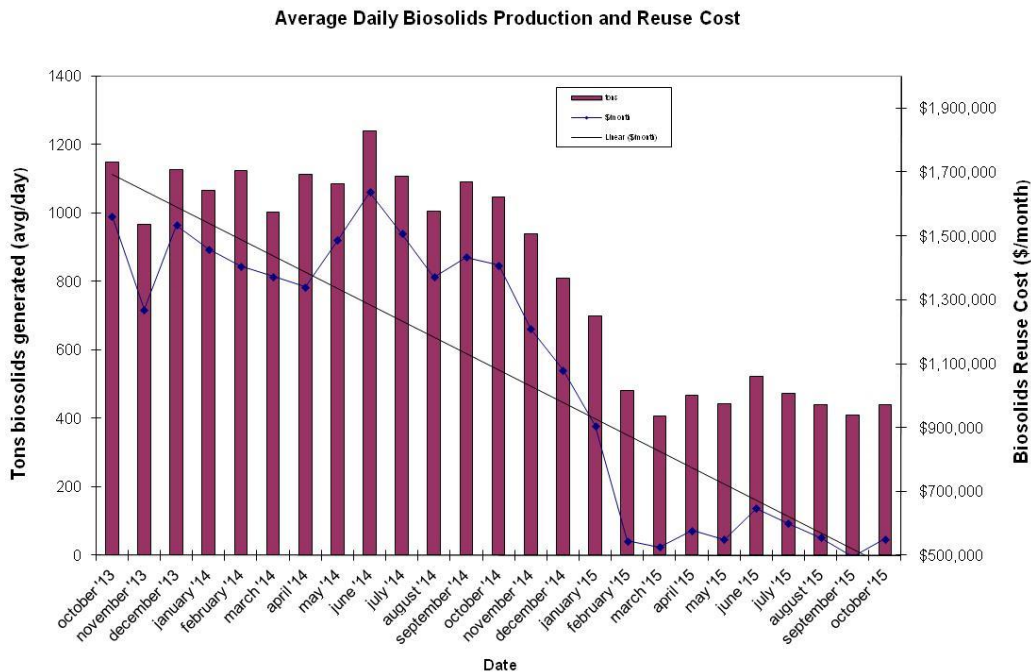
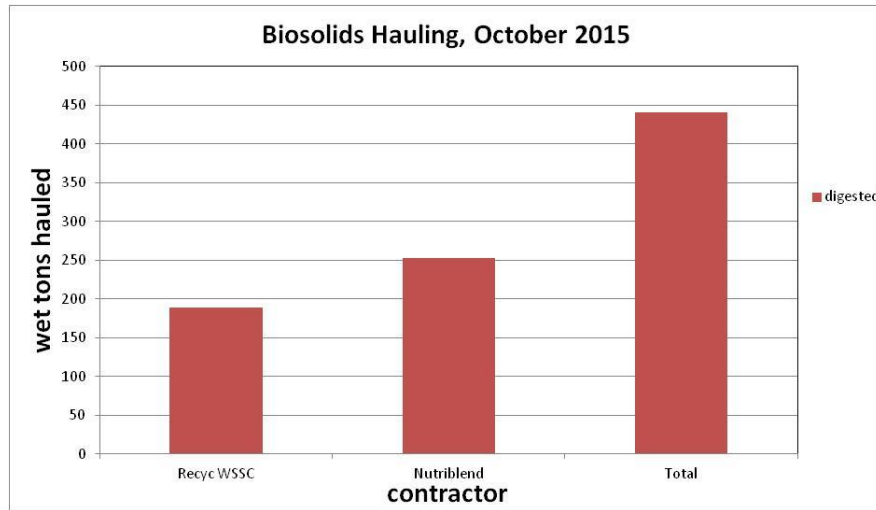


## October 2015 Resource Recovery Report

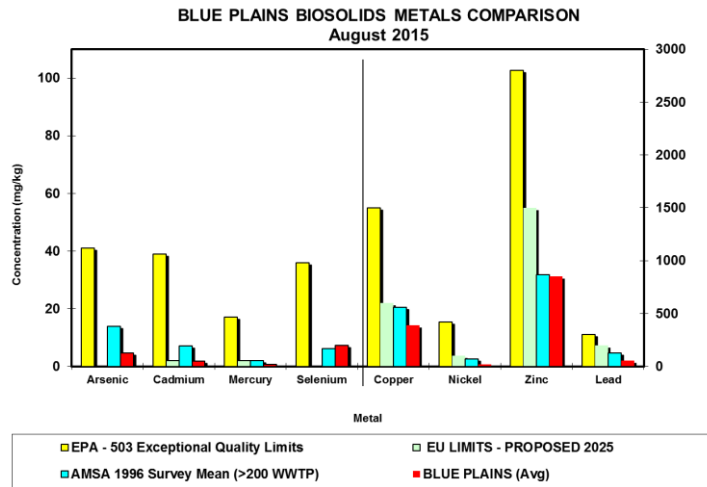
In October, biosolids hauling averaged 441 wet tons per day (wtpd). The graph below shows the total hauling by contractor for the month of October. The average percent solids for the digested material was 30.4%. At the end of October the Cumberland County storage pad had approximately 2561 tons (~25,000 tons capacity), Goochland pad had approximately 1000 tons of Blue Plains biosolids, and Fauquier lagoon had 1208 tons (~15,000 tons capacity).



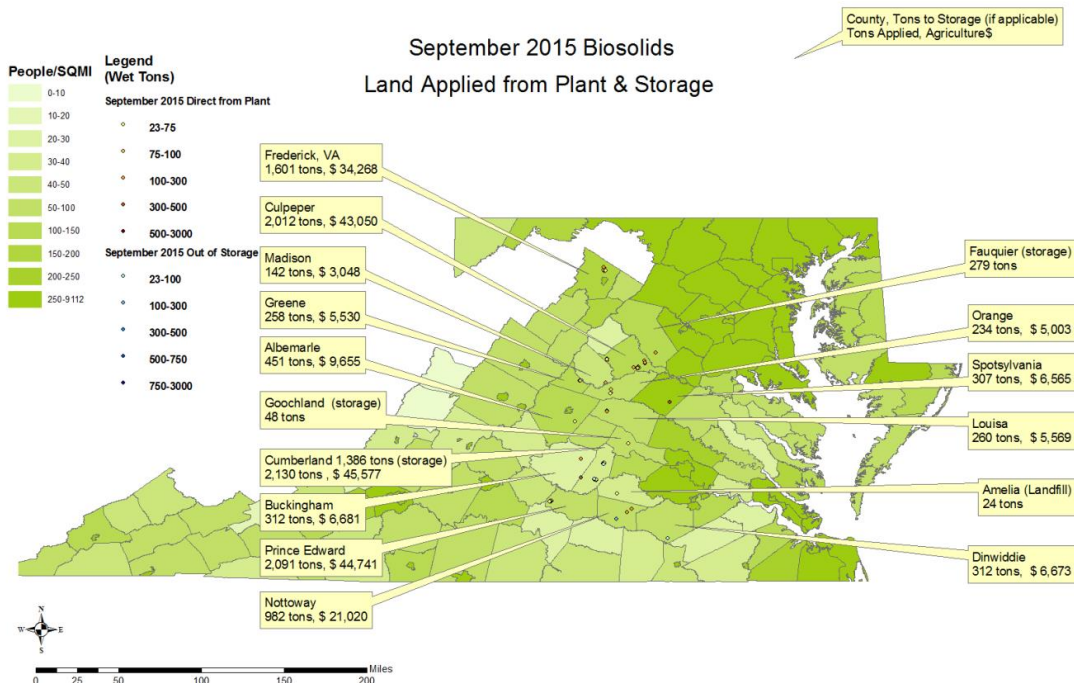
Please note the drop in biosolids management costs (second graph below, right vertical axis) due to the reduction in solids production since digesters came on line, and also due to the drop in fuel costs. In October, diesel prices averaged \$2.67/gallon and with the

contractual fuel surcharge the weighted average biosolids reuse cost in October for the two contracts (DC Water and WSSC) was \$40.21/wet ton. For comparison, in October 2014 the average contract cost was \$43.28/wet ton.

The graphs below show the EPA regulated heavy metals in the Blue Plains biosolids for the month of August 2015. 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.



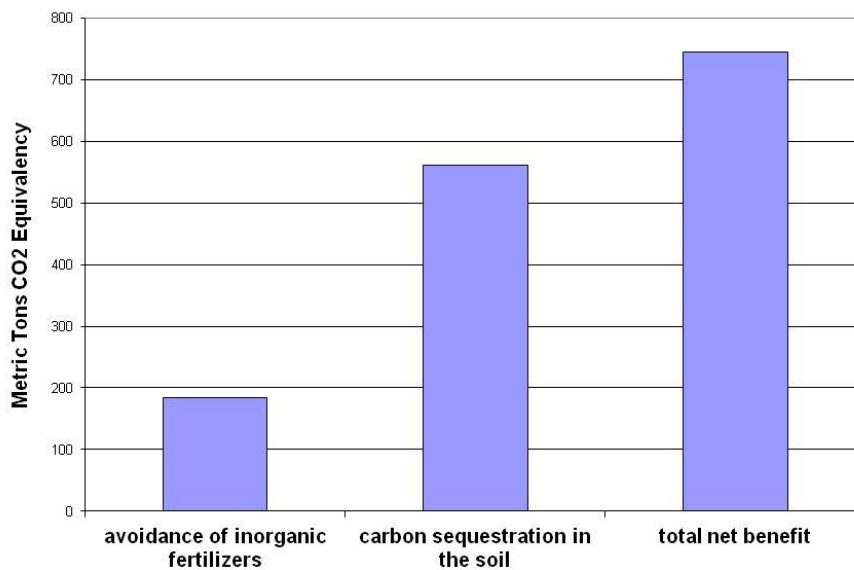
## Map of Blue Plains Biosolids Applications and Agricultural \$'s for September 2015



## Environmental Benefits

The quantity land applied in September coming directly from the plant and from storage facilities equaled 11,116 tons. Taking into account the fuel required to transport biosolids to the field, the net benefit of the land applied material is 744 metric tons CO<sub>2</sub> equivalent avoided emissions. This is equivalent to taking 1,515,828 car miles off the road in the month of September (assumes 20 mpg, 19.4 lb CO<sub>2</sub> equivalent emissions/gallon gas – EPA estimate). The cumulative total avoided carbon emission since December, 2006 is 141,046 metric tons CO<sub>2</sub> equivalent.

### DCWater Biosolids Recycling Program Greenhouse Gas Balance Benefits September 2015 Totals



## Highlights

Staff received written confirmation from the Virginia Department of Environmental Quality (DEQ) on October 30<sup>th</sup> confirming that the thermally hydrolyzed and digested biosolids do, in fact, meet the EPA criteria for Exceptional Quality and Class A designation. This precedent setting certification paves the way for DC Water to market its product in an urban setting for landscaping, tree planting, gardening, etc. VA DEQ staff were very engaged in this process, and worked with staff throughout the 90-day certification period, during which staff collected and analyzed samples on a daily basis (for the first 30 days) and then less frequently for the following 60 days.

The digester commissioning event, held on October 7<sup>th</sup>, brought together DC officials, EPA administrators, staff, and the press to celebrate the start-up of this milestone technology. The DC Water GM and CEO highlighted not only the green energy produced at the plant via use of the methane produced in the digesters, but also the

Class A biosolids product. This is a valuable product that DC Water has plans to market, as soon as this spring on a trial basis. The DC Water Board Chair, Matt Brown, the DOEE Director Tommy Wells, and the Mayor Muriel Bowser all remarked at the quality of the product, and several challenged us to get the product into the market on onto the shelves of stores in the DC area. Staff is working diligently to make this happen, and will likely market its first product in the coming year. Staff handed out bags of Class A biosolids and flower bulbs to plant this fall with the high quality soil amendment.

