



Facts About BIOSOLIDS

What are biosolids?

After water is used in homes and businesses in the District of Columbia and portions of adjacent counties in Virginia and Maryland, it is sent to the Blue Plains Advanced Wastewater Treatment Plant. There, the solid materials are separated and sent to our new state-of-the-art digesters. The digestion equipment adds heat, pressure and helpful bacteria to the solids to destroy harmful pathogens and reduce odor. The final product is a nutrient-rich product similar to soil called biosolids.



Are there environmental benefits to using biosolids as a soil amendment?

There are multiple benefits for using biosolids. Applying biosolids to the land helps capture carbon and prevents it from being released to the atmosphere. Using biosolids also reduces demand for commercial petroleum-based fertilizers and the energy used to manufacture it. Currently, most biosolids produced at Blue Plains are exported and applied to farms outside of the District of Columbia as a soil enhancement. Using biosolids locally reduces emissions and the carbon footprint created by hauling this valuable product far from its source. DC Water currently donates biosolids to community gardens and to the District government for public works projects.



Are biosolids soil amendment products safe? **YES** ✓

The National Academy of Sciences has reviewed current practices, public health concerns and regulator standards, and has concluded that “the use of these materials in the production of crops for human consumption when practiced in accordance with existing federal guidelines and regulations, presents negligible risk to the consumer, to crop production and to the environment.”

DC Water’s biosolids are the product of an intensive and technologically advanced process that uses high heat and biological processes to remove pathogens found in wastewater. DC Water’s soil amendment products meet all U.S. Environmental Protection Agency (EPA) standards for use in an urban setting like the District of Columbia. Oversight from EPA means that biosolids-based soil amendments are more regulated and studied than other fertilizer alternatives.

What are Class A biosolids?

Class A biosolids contain essentially no pathogens and contain very low levels of metals. At DC Water, we actually go beyond these standards to produce EPA-certified Exceptional Quality biosolids.

What do biosolids smell like?

DC Water digested biosolids have very low odors, described as earthy or musty. After it is applied and mixed with soil, the scent is even further reduced.

learn more: dcwater.com/education/biosolids.cfm

continued

Are there toxins of concern in biosolids?

Due to federal regulations, land applied biosolids are far more regulated and studied than other soil amendments on the market. Our final product does have low concentrations of heavy metals. However, their presence is similar to the amount found in soils in urban areas and far below the levels found to pose a risk to human health. Many of the metals found present in biosolids are also present at higher concentrations in popular multi-vitamins and consumer products that we use every day. In addition, heavy metals typically enter the water system from industrial sources (only around 3% of total flow to Blue Plains). DC Water has an aggressive pre-treatment program that requires these users to remove these compounds before they reach Blue Plains.



Fact: A healthy adult would have to eat **38** cups of our biosolids per year to reach the U.S. Food and Drug Administration's (FDA) recommended daily value of copper.

Unfortunately, pharmaceuticals, anti-microbials and other trace organic compounds are persistent and found nearly everywhere in modern society. Many of these chemicals are found in bagged fertilizer products available at your local garden store. Biosolids contain these compounds at very low levels. For instance, the amount of PBDEs (a class of flame retardants) is several thousand times higher in household dust than in biosolids. Another family of compounds are antibacterials like triclosan, which are used in antimicrobial soaps and hand sanitizers. DC Water monitors and has invested in research related to these compounds. However, triclosan can be found at much higher levels in products we use every day.

Fact: There are 4,000 parts per million of triclosan present in a single use of common toothpaste. DC Water's biosolids contain only 15-20 parts per million of triclosan.



Do other cities use biosolids soil amendments?

Yes. Cities like Milwaukee, Seattle, Tacoma, Austin, Houston, Boston, and Baltimore use and sell their high quality biosolids soil amendment products.

Where can I learn more about the science of biosolids?

Resources and links to biosolids research can be found on our website at dcwater.com/education/biosolids.cfm

Where can I find DC Water's biosolids soil amendment product?

DC Water will soon produce several different soil amendment products that are similar to compost using our Class A biosolids. Currently, we are providing our soil amendment product to select community gardens in the District of Columbia free of charge. Please contact Bill Brower at Bill.Brower@dcwater.com if you are interested in learning more about using our product.

