

# Biosolids Q&A

## **What are biosolids?**

Biosolids are a natural, safe, and endlessly renewable resource that improves our environment, lowers costs to consumers, and strengthens our farming communities. Loaded with vital nutrients, biosolids are an efficient and effective way to capture value from your wastewater plant while generating renewable energy and resources.

## **Where do biosolids come from?**

Clean water utilities across the country have been safely creating biosolids for decades, delivering innovative solutions that lead to stronger, more sustainable, and resilient communities.

## **Who uses biosolids?**

Farmers are the biggest users of biosolids—they used more than half of the biosolids produced by clean water utilities in 2019 according to the EPA. Parks and golf courses are other large users of biosolids. About a quarter of all biosolids are burned for energy and the resulting ash can be used as a filler in concrete and brick manufacturing, for road construction, and much more.

## **What are the beneficial uses of biosolids?**

Because biosolids are loaded with nitrogen, phosphorus, and many other key nutrients needed to grow plants, the most popular use is as compost or natural fertilizer to improve soil for farms and home gardens. Biosolids can also be converted to biogas to be used for heat, power, or vehicle fuel.

## **Are biosolids safe?**

Biosolids have been used safely for decades. Biosolids are regularly monitored to ensure they comply with federal and state regulations. Hundreds of academic and scientific studies have shown that biosolids are a safe and responsible alternative to chemical or animal fertilizers.

## **How do biosolids help fight climate change?**

Applying biosolids to farmland has been shown to increase the soils' ability to store carbon, which keeps it out of the atmosphere, helping to reduce greenhouse gas emissions. The use of biosolids also reduces the need for chemical fertilizers, which contribute significant amounts of greenhouse gas emissions when they are manufactured and used.

## **How do biosolids create renewable energy?**

Renewable energy in the form of biogas is created as part of some biosolid production processes. Nearly 300 clean water utilities in the U.S. are recovering energy by converting their

biogas to electricity. It is estimated that energy created at U.S. clean water utilities could meet 12% of U.S. electricity demand, the equivalent of all annual power needs of New York City, Houston, Dallas, and Chicago.

### **Why do farmers prefer biosolids over chemical fertilizers?**

Rich in nutrients, biosolids actually improve the health of the soil and allows for the slow release of key compounds like nitrogen and phosphorous; key nutrients needed to grow healthy plants.

### **What are the economic benefits of using biosolids?**

Biosolids are an important and growing part of creating resilient local economies, where resource recovery contributes to economic growth by creating jobs, reducing utility costs that benefits customers of clean water utilities, and enabling renewable energy production.