



RESOURCE RECOVERY

One valuable product of wastewater treatment is what industry professionals call “biosolids.” CMUD’s five wastewater treatment plants produce about 90,000 wet tons of biosolids annually. This soil-like material is applied to around 4,000 acres of local farmland. Biosolids contain nitrogen, phosphorus, micronutrients and organic matter, each of which is critical for healthy, productive crops. CMUD has partnered for over a decade with an independent biosolids contractor, Synagro, to manage our biosolids program.

ENVIRONMENT

Recycling biosolids is good for the environment because it returns nutrients and organic material to the soil. Biosolids are a source of carbon. Recycling through land application is the most carbon neutral method of use of the product. Farmers that use biosolids reduce or eliminate the need to utilize chemical fertilizers. The organic nitrogen component of biosolids is slow-release, making it available to the plant throughout its growing season.



SUSTAIN

The Charlotte biosolids program is ISO 14001 Certified. We strive to meet all legal requirements through rigorous review on an ongoing basis. Regulatory agencies, agricultural universities, the agricultural industry and municipal producers encourage and support the land application of biosolids. Biosolids have been safely recycled in the Charlotte area and throughout the world for decades.

PROVEN

Science drives the treatments that generate biosolids. Treatment facilities provide an environment for the natural digestion of by products of a waste collection system. Introduction of industrial pre-treatment through the Clean Water Act, has all but eliminated most heavy metals. Prestigious institutions such as NC State, VA Tech, Ohio State and University of Arizona have made it a practice to engage in studies about the use of biosolids. They have independently studied the soils, vegetation and the air and have consistently found that the practice of biosolids recycling is safe and the regulations in place are protective of human health.



EDUCATIONAL RESOURCES

The U.S. Environmental Protection Agency (EPA) and the North Carolina Department of Environment and Natural Resources (NCDENR) provide educational information, based on science, about the safety and history of recycling biosolids. Following is a partial list of organizations and their websites where you can visit to learn more:

EPA epa.gov

NCDENR ncdenr.gov

National Biosolids Partnership nbp.org

Mid Atlantic Biosolids Org. mabiosolids.org

NC State Cooperative Extension ces.ncsu.edu

University of Arizona arizona.edu

Ohio State University osu.edu



COMMUNITY

Benefits of biosolids recycling are:

- Fertilizer cost savings to the farmer
- Improved crop health and robust harvests
- Land Application is the most cost effective option for the generator of the biosolids
- The land application program creates over 30 local jobs.
- The program generates local and state revenues through taxes and fees.