

Waste to Wood Teacher's Answer Key

The Metropolitan Wastewater Management Commission cleans water for the entire Eugene-Springfield region, and strives to do so in a sustainable way. Sustainability is the act of taking good care of the resources we have and reducing waste. One way that the MWMC does this is turning waste into wood.

It's a simple fact, everyone pees and poops! When human waste is flushed down the toilet, it's transported in wastewater underground through large pipes to the Regional Wastewater Treatment Plant in North Eugene. At the plant, solids are physically removed from wastewater in large tanks called primary clarifiers. The solids settle to the bottom of the clarifiers through gravity, and then are pumped to anaerobic digesters to be treated by microorganisms and processed into biosolids.

After that, the biosolids are pumped underground to the Biosolids Management Facility, where they decompose in large lagoons over several years. Once they're done processing, the biosolids are ready to use as a safe, nutrient-rich fertilizer! That fertilizer is applied on the MWMC's Biocycle Farm to help our poplar trees grow. It's also applied on grass farms to help local farmers. This is an example of sustainability in action – instead of trashing biosolids in a landfill, we reuse them in a way that benefits our local environment. Recycled water, or treated wastewater, is also used on the Biocycle Farm to irrigate the poplars.

After the poplar trees grow for about 12 years, they're harvested and turned into plywood, wood chips, and other wood products that are sold to provide a renewable resource for our community. That's what sustainability is all about – reducing waste and producing/using renewable resources that can be easily replaced or naturally regrown rather than non-renewable, or limited, natural resources that cannot be easily replaced.

Metropolitan Wastewater
MANAGEMENT COMMISSION



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