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# GENERAL BROCHURE

## RECYCLING NATURE'S RESOURCES

The Metro Wastewater Reclamation District is the West's largest wastewater treatment facility. We treat more than 160 million gallons of wastewater a day at this premier plant using the most modern technologies available to model the oldest known treatment system -- Nature.

The Metro District produces three recycled or recyclable products:

- Water clean enough to be put into the South Platte River and designated as drinking water supply
- Biosolids, a natural soil amendment and fertilizer product containing organic matter and micronutrients
- Methane, a by-product gas we burn as fuel to generate electricity and hot water in a process called cogeneration.

The Metro District is also nationally recognized for its innovative approaches to automation, which saves ratepayers money and runs the plant safely and smoothly. The U.S. Environmental Protection Agency, the Association of Metropolitan Sewerage Agencies, the American Public Works Association, the Water Environment Federation, and the Government Finance Officers Association have all recognized the Metro District for its outstanding performance.

## WHAT IS THE METRO DISTRICT?

The Metro District is the wastewater treatment authority for most of metro Denver. It provides wholesale wastewater transmission and treatment service to 55 local governments in the Denver metro area. The State of Colorado created the Metro District in 1961, and it began operations in 1966. Hundreds of federal, state, and local regulations govern the Metro District's environmental activities, and accepted professional practices and standards guide others.

Here are some highlights of the Metro District's system:

- Service area encompasses 380 square miles
- More than 250 miles of interceptor sewers (trunk lines) lines feed the system
- 1.5 million people in metro Denver are served by the Metro District
- Annual operating budget of about \$39 million
- Organization includes 20 Member Municipalities, 24 Special Connectors, and 11 special category connectors
- Employs more than 330 people
- Generates about one-half the electricity it needs to run its facility through its cogeneration power plant
- Recycles METROGRO™ Organic Soil Conditioner and Fertilizer for agricultural use and as a consumer compost product that puts a mostly organic, soil-friendly resource back to work

## WHO RUNS THE DISTRICT?

The 20 Member Municipalities comprise the Metro District's governing body—the Board of Directors—which has 66 members. Board members decide District policy issues and address financial concerns. Each Member Municipality gets one board member for every 25,000 in population.

## WHAT DOES THE DISTRICT DO?

### Reclaiming the Water

Nature has been cleaning water for more than four-and-a-half billion years. The Metro District applies these same principles to cleaning wastewater today. Advanced technology makes it possible for the District to clean the incoming wastewater in about 12 hours from beginning to end. Gravity is a key element in this process, bringing the wastewater to the plant and playing an important role throughout the treatment process.

Primary treatment removes suspended solids from the wastewater mechanically through settling, skimming, and screening. Then, in secondary treatment, naturally occurring microorganisms “eat” the remaining dissolved organic matter, clump together, and sink to the bottom as the cleaned water moves to the next treatment stage. The water is then disinfected and returned to the river.

Over the years, the Metro District has added advanced systems to improve the treatment process. In 1990, for example, nitrification and denitrification were added to speed the breakdown of ammonia in the plant - before the water is released into the river. The District is also building several low, man-made



waterfalls called “drop structures” in the river itself to tumble the water and add more oxygen. This increase in oxygen helps the plants, animals, and water ecosystems downstream and will help save our ratepayers money, too.

### Recycling Nature's Nutrients

The Metro District is environmentally conscientious and applies this philosophy throughout all its the treatment process. Recycling the mostly organic nutrients from the solid materials that are removed from the wastewater during treatment is one way the District provides additional benefits to Colorado with its biosolids products.

METROGRO™ Organic Soil Amendments and Fertilizer products are produced as both a compost suitable for homeowner use and as cake products for production agriculture.

METROGRO™ biosolids products are safe and reliable. They enhance the soil by adding nutrients, improving tilth, and adding organic material, thereby improve crop production at a very low cost. The solids are treated to kill pathogenic organisms and are perfectly safe when used as directed by stringent federal and state regulations.

During anaerobic digestion - the process that kills pathogens in the biosolids - methane biogas is also produced. This by-product is captured and used as fuel

for engines that generate electricity and heat. The electricity reduces the Metro District's costs, and the heat is recaptured for use in several processes—such as anaerobic digestion. This process is called cogeneration. During the year, more than \$1 million worth of electricity is produced.

## **WHO MAKES UP THE METRO DISTRICT?**

### **Member Municipalities:**

Alameda Water & Sanitation District  
Applewood Sanitation District  
City of Arvada  
City of Aurora  
Bancroft-Clover Water & Sanitation District  
Berkeley Water & Sanitation District  
Crestview Water & Sanitation District  
City and County of Denver  
East Lakewood Water & Sanitation District  
Fruitdale Sanitation District  
City of Lakewood  
North Pecos Water & Sanitation District  
North Table Mountain Water & Sanitation District  
North Washington Street Water & Sanitation District  
Northwest Lakewood Sanitation District  
Pleasant View Water & Sanitation District  
City of Thornton  
City of Westminster  
Westridge Sanitation District  
Wheat Ridge Sanitation District

### **Special Connectors:**

Bear Creek Water & Sanitation District  
Bennett Bear Creek Farm Water & Sanitation District  
Bow Mar Water & Sanitation District  
Castlewood Sanitation District  
Cherry Creek Valley Water & Sanitation District  
East Jefferson County Sanitation District  
City of Edgewater  
City of Englewood  
Goldsmith Gulch Sanitation District  
Green Mountain Water & Sanitation District  
Havana Water & Sanitation District  
Hi-Lin Water & Sanitation District  
Hillcrest Water & Sanitation District  
Holly Hills Water & Sanitation District  
Industrial Park Water & Sanitation District  
Lakehurst Water & Sanitation District  
Lochmoor Water & Sanitation District  
Town of Mountain View  
North Lincoln Water & Sanitation District  
Sheridan Sanitation District No. 2  
South Sheridan Water, Sanitary Sewer, & Storm Drainage District  
Southwest Plaza Metropolitan District  
Southwest Suburban Denver Water & Sanitation District  
Willowbrook Water & Sanitation District  
Lochmoor Water & Sanitation District