### King County Biosolids

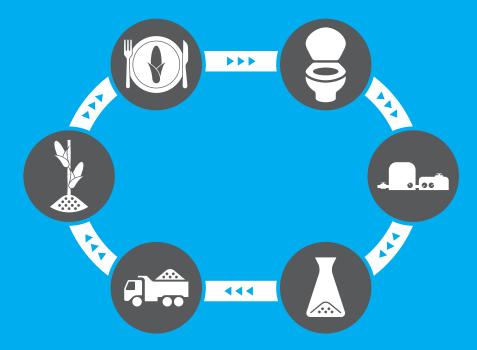


Turn your dirt around



Loop is a fertilizer replacement that King County produces by cleaning, recycling, and transforming 100% of the poop and food that goes down toilets and drains. Loop generates healthier, more productive soil, offering a socially responsible, financially smart, and environmentally sustainable way to use resources that would otherwise be lost.

TURN YOUR DIRT AROUND | 1





# THE POOP LOOP IS POWERFUL— AND IT'S SOURCED BY YOU

You are at the start of this cycle. The water you use at your home goes to the wastewater treatment plant. At the plant, naturally occurring bacteria break down the solids and kill disease-causing organisms. This creates Loop! Loop enriches the soil to grow strong, healthy plants. You eat the plants and the cycle starts all over again.

# You can get up to 40% more yield with Loop.

Grain yield data from Washington State University



No Fertilizer 615 lb/acre of grain

Commercial Fertilizer 1293 lb/acre of grain



Average Loop Application 1938 lb/acre of grain

## WHAT MAKES LOOP SO GREAT?

You harvest more crops, trees, flowers, and veggies when you use Loop or compost made with Loop.

We've conducted years of testing at research and commercial sites. Loop is just as effective or better than any synthetic fertilizer on the market.

#### 4 | LOOP

WITHOUT LOOP WITH LOOP

Customers have been using Loop for more than forty years because it works!

#### **BETTER SOIL=BETTER RESULTS**

Organic matter is the workhorse of soil. Decomposed plant and animal material holds water like a sponge. It stores nutrients for plants, provides habitat and food for soil organisms and decreases the need for herbicides and pesticides.

Loop is full of organic matter, which is why it is so effective at building healthy soil.

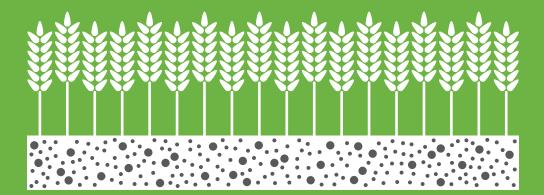
### **PROVIDING ALL THE NUTRIENTS**

Plants need a variety of nutrients to grow and thrive. We know about nitrogen—what else do plants use? Manganese is necessary for photosynthesis. Without zinc, plants can't grow leaves properly. Plants need boron to produce high quality pollen.

Loop provides all the micronutrients plants need, in the right amounts, which would be cost prohibitive with synthetic fertilizers.

TURN YOUR DIRT AROUND | 7

Tiny amounts of micronutrients pack a punch!



8 | LOOP



# THE ADVANTAGE OF TAKING THINGS SLOW

Plants can use only a certain amount of nutrients at a time. More is not always better when it comes to fertilizer.

Loop is a slow-release fertilizer replacement. Nutrients are released over time rather than all at once for long-term plant growth. Even years later, Loop can provide the nutrients the crop needs. Some farmers get two harvests from one application of Loop!



# **CONSISTENT QUALITY**

King County's accredited environmental lab regularly tests Loop for nutrients, metals, pathogens, and chemicals to ensure the quality and consistency of our product. Rigorously analyzed and regularly monitored by the EPA, the State of Washington, and extensive university research, Loop has exceeded all environmental standards for decades.

### WHAT ABOUT METALS?

Metals are naturally occurring in the soil and plants actually require some metals. But, it is possible to have too much of a good thing. The EPA set limits on nine metals and we test for them every month.

Loop has always been far below the upper limits of any of the regulated metals.



# WANT TO KNOW THE DETAILS?

We know more about what's in Loop than any other fertilizer replacement on the market.



MACRONUTRIENTS	LOOP AVERAGE
Total Nitrogen	6.92%
Plant Available Nitrogen	0.99%
Organic Nitrogen (slow-release)	5.93%
Phosphorus	1.84%
Potassium	0.15%
Sulfur	1.01%
Calcium	2.31%
Magnesium	0.60%
MICRONUTRIENTS	
Boron	0.0035%
Manganese	0.06%
Nickel	0.002%
Zinc	0.09%
Copper	0.03%
Iron	1.32%
Molybdenum	0.0009%
PHYSICAL PROPERTIES	
Organic Matter	76%
рН	8.7
Moisture	77%
Organic Carbon	42.62%
Plastic Contaminants	0.08%

#### **TURN YOUR DIRT AROUND | 13**

## **HOW DO YOU USE IT?**

You only add the amount of nutrients plants can actually use. This is known as an agronomic rate. Applying Loop this way protects our drinking wells, rivers, lakes, and oceans. When you use the right amount, nutrients stay put in the soil where plants can use them.

To use Loop, you need to get a regulatory permit and adhere to guidelines for safe handling and application. This is because King County's wastewater treatment process kills most (95-99%), but not all, of the pathogens in Loop. Sunlight, heat, and soil microorganisms kill the remaining pathogens. Loop application requires equipment like manure spreaders.

If Loop isn't the right product for you, compost made with Loop can be used anywhere, on anything, because it is effectively pathogen-free.

#### 14 | LOOP

TURN YOUR DIRT AROUND | 15

-----

661

100



# WANT TO KNOW MORE?

We have decades of test results and research available for the public. Contact us or visit our website to see more about how Loop is made, distributed, and used.



King County Loop Biosolids 206-477-5557 loop@kingcounty.gov loopforyoursoil.com

Want to stay in the loop? Text KING LOOP to 468311

\*message and data rates may apply