



Recycling

Throughout most of known history people have recycled. Resources were difficult to acquire and throwing things away just was not done. In pre-industrialized societies the scarcity of materials and difficulty of creating products made recycling a part of life.

Recycling reduces pollution, the need for landfills, and the costly extraction of raw materials. Recycling is the processing of used materials into new products.

The earth is designed to recycle most everything. The microbial bacterias, and other natural processes break down most materials over time.

In ancient times as well as today, it is often economics that drives recycling. It is often less costly to melt down scrap steel that to mine, refine, and manufacture more

Before we were able to synthesize enough anhydrous ammonia, and find deposits of super phosphate, and muriate of potash, we had only manures to enrich our soils. Gene Logsdon in his book *Holy Shit* estimates that humans discharge over 50 million tons of recoverable nitrogen, phosphorus, and potassium each year. At this time in our history this represents over 50 billion dollars per year in biosolid fertilizer that we throw away. Not only that, but it costs billions world wide to throw it away.

If we don't find a way to recycle our biosolids, and instead allow those biosolids to be a source of pollution in our environment, we may soon find ourselves in a difficult situation worldwide.

In *The Humanure Handbook*, the rate of released treated sewage water in 1985 was 31 billion gallons per day. That rate is most likely now 62 billion gallons per day. That amount of treated water requires spending billions of dollars for chlorine as treatment. Getting that water to consumers costs billions of dollars more. And, is chlorine safe, that debate continues on.

If the over 3 billion people on the planet who do not have any flushing toilets started flushing, there would not be enough water on the planet to do so.



“Humanure is not waste at all—it is an organic resource material rich in soil nutrients.”