# **My Shredding Services**

### How will recycling save you money?

Have you ever wondered how recycling helps? Why do I have to pay money to have my stuff recycled? What's in it for me other than tossing money out the door every time the recycle truck comes to pick up my recyclables? Does it really help the earth? Can recycling really bring down the cost of everyday products I purchase?

Please take a few minutes to consider some interesting facts showing you how recycling saves you money and affects the everyday quality of life.

Are you tired of the ever-shrinking boxes at the store? It costs the same and looks the same but you get less product in the box for the same price you have always paid. Now you are buying two boxes instead of one box. The more that people recycle the lower overall cost your products will be at the store.

If a company has the price of anything raised (paper cost, box cost, printing cost, product cost, labor cost, taxes, shipping, etc.), they start to lose money. As a result, they shrink the box to keep the same amount of profit as they had originally. Recycling can help to keep the prices down. If they don't have to pay such high prices for packing your product, they can offer more to you at the lower price.

By recycling they reduce the amount of money spent on cutting down trees, trucking the trees, and processing the trees to make paper and cardboard.

Recycling also helps lower the cost of transporting the trash to landfills. Since there is less trash being sent to the landfills, this will minimize the amount of new landfills that

need to be opened. This is especially beneficial because each landfill can cost over 10 million dollars just to open and this is reflected in trash trucking costs. Also who wants them to build another landfill possibly in your backyard?

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### Here is some information on landfills:

### Landfill Basics

#### Opening a landfill

Basic Equipment	Estimate Of New Equipment	Quantity of Equipment	Total Cost of Equipment
Articulated Dump			
Truck	\$700,000.00	1	\$700,000.00
Compactor	\$1,000,000.00	1	\$1,000,000.00
D6 Dozer	\$300,000.00	2	\$600,000.00
D8 Dozer	\$700,000.00	3	\$2,100,000.00
Excavator	\$800,000.00	1	\$800,000.00
Fuel Lube Truck	\$300,000.00	1	\$300,000.00
Loader	\$900,000.00	2	\$1,800,000.00
Loader Skid Steer	\$90,000.00	3	\$270,000.00
Small Excavator	\$450,000.00	1	\$450,000.00
Tarping Unit	\$100,000.00	1	\$100,000.00
Water Truck	\$400,000.00	1	\$400,000.00
Wheel Loader	\$450,000.00	1	\$450,000.00
Land Cost	\$200,000.00	1	\$200,000.00
Total	\$6,390,000.00	19	\$9,170,000.00

You must take into account that this does not include design cost, employees, buildings, permits, scales, maintenance, land preparation and many other costs associated with opening a landfill. At this point, opening a new landfill cost over nine million dollars and the land is still not ready to take the trash. Remember to add the following up as we proceed on.

### How the landfill is built

1. Solid ground: This is the base of the landfill.

2. Clay: Clay is placed over the solid ground. This helps prevent any leachate from leaving the landfill if the geomembrane is torn or damaged. Clay is usually trucked in.

3. Geomembrane: A large piece of plastic that prevents leachate from leaving the landfill.

4. Leachate collection system: Drain pipes through sand and gravel that allow the leachate to drain to a safe storage system. Leachate is a liquid that is produced by rotting trash. If it is leaked into the water supply it can poison people and animals.

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5. Geotextile liner: Separates solid particles from liquid and helps prevent clogging of the piping system for the leachate.

6. Gas pipes: Gas pipes are layered in the landfill to carry gases produced by the rotting trash to the burner. Gas from the landfill is mostly carbon dioxide and methane. The rotting of the trash, paper, and wood produces this gas. The gas collection system adds approximately \$11,000 to \$20,000 per acre. You also need to add in the costs of maintenance and operation.

7. Burn off point (flare): This is where the gas produced from the landfill is burned into the air.

8. Monitoring system: Monitoring system that continually tests ground water to make sure it is not contaminated with leachate.

9. Leachate treatment system: All leachate produced must be cleaned before released in to the environment.

### **Everyday Events at a Landfill**

1. Cover the trash daily: Each day at close of business, they must cover the trash with 6 inches to 12 inches of dirt. This is to help keep odor down and to keep the trash from blowing around. This will form a layer over each day's trash which makes the landfill grow even faster than if it was just trash.

2. Compact the trash: When the trash arrives it must be compacted into small areas called cells. Each cell must be packed to ensure the safety of employees and customers. Employees and GPS systems monitor the process.

### Closing a Landfill (Capping the landfill)

To cap a landfill it costs between \$90,000 to \$500,000 or more per acre. This easily pushes the closing costs well over a million dollars.

1. Gas pipes: Additional gas pipes may be needed when capping a landfill.

2. Monitoring system: Even after a landfill is capped, it still needs to be monitored 24 hours a day to keep it safe. They also send someone out on a regular basis to manually test that the ground water is not contaminated. The landfill must be monitored for a minimum of 30 years after the landfill is closed, to maintain safety.

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3. Clay: Clay is placed over the trash. This helps prevent water from entering the landfill if the geomembrane is torn or damaged.

4. Geomembrane: The original layer continues to prevent leachate from leaving the landfill. The layer added when capping the landfill prevents water from entering the landfill. It also reduces the odors from the landfill.

5. Drainage layer: Layers of gravel and sand to help drain excessive rain to help stability of the landfill.

6. Protective cover: Helps the vegetation retain moisture and promotes growth.

7. Top soil: Further helps maintain the vegetation.

8. Cover of vegetation: Grass, to make visually pleasant.

9. Future cost: Unknown what problems may creep up after the landfill is closed. Depending on what problem occurs this can reach easily into the millions of dollars.

### Avenues of income for landfills

- 1. Landfills get money through your taxes.
- 2. Some landfills get paid by the homeowner for trash removal from your house.
- 3. Landfills get paid through trash removal from businesses.

4. People that take trash to them, usually contractor or homeowner with unusual amounts of trash. They pay per yard of trash taken to the landfill.

5. Some landfills are non-profit. This means that they can get grants through the state (your taxes) and from donations.

Every time we have to open another landfill, you can expect the prices to go up as our land space decreases.

Please remember that even though landfills may be costly, we still need landfills. Landfills are a safe way to dispose of unwanted trash. However, landfills don't need to be used as a trash pit for everything. With less paper, plastic, and metal in the landfills, we can keep our land clean and healthy and keep the landfills for THINGS WE CAN NOT REUSE. By keeping paper, plastic and metal out of the landfills we help everyone.

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## Now that you have an understanding of landfills, let us take a look at some of the other benefits of recycling.

Most small offices will throw out 150 lbs. of paper in a month or less, this equals about 1800 lbs. of paper in a year.

This will equal a savings of:

342 gallons of oil!

### 6318 gallons of water!

16 trees from being cut down in a single month!

5580 Kilowatts of Energy!

54 pounds less of air pollution!

Let us take a closer look at what this means.

342 gallons of oil or \$684.00 worth of oil at \$2.00 a gallon: This will help cut down on America's dependency on oil. Importing less oil helps to keep the prices of oil lower. Remember that high demand = high prices, low demand = low prices.

6,318 gallons of water: Now that we have saved 6,318 gallons of water this year we can be happy that we don't need to have that water in the sewers.

16 trees from being cut down: Not only will this help save money it will also help save lives of tree cutters. Tree cutting is a very dangerous job.

5,580 kilowatts of energy being saved: By saving electricity we won't need to keep producing new power plants to keep up with the demand. This will help reduce brownouts and bring the price of power down.

54 pounds less of air pollution: Clean air is beneficial to everyone.

That is only if one company recycles monthly for one year. As of today there are over 70,000 businesses just in Oakland County Michigan alone. If only half of them recycled do you think it would help? Let's take a look.

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### If 35,000 businesses in Oakland County Michigan recycled 1800 lbs. per

**year** per company for a total of 63,000,000 lbs. of paper, the savings would be as follows:

### 11,970,000 gallons of oil!

### 221,130,000 gallons of water!

### 538,462 trees from being cut down in a single month!

195,300,000 kilowatts of energy!

1,890,000 pounds less of air pollution!

### All saved in one month!!!

**Remember that is only half of the companies in Oakland County**. From personal experience, I have found that most companies toss out more than 1800 lbs. of paper a year.

Let me ask you now do you think that using 12 million gallons less of oil would help? Would saving 221,130,000 gallons of water be a big enough savings to make a difference? Would saving 538,462 trees be a big savings? Would 195,300,000 kilowatts of energy or 1,890,000 pounds less of air pollution be a savings? What about the fact that you saved 63,000,000 lbs. of paper from our landfills?

Please tell your friends to start recycling today.

### How Paper is Recycled

1. Pickup. Trucks come to your office and pick up your recyclables.

2. Pulping. The paper is soaked in water and chemicals and mixed in a big mixer to help break up the fibers. This turns the fibers into a slurry called pulp. They also deink the paper to make it clean again.

3. Sifting. The pulp is then sifted with large screens that help remove any contaminants.

4. Finishing. After sifting takes place, they mix the recycled pulp with virgin pulp. They then lay the paper pulp and press it with large rolling pins to make new paper.

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For the most part, the process is the same for new paper or recycled paper. The only difference is where the pulp came from.

### Facts

With 12 million gallons of gasoline you could fill up 600,000 cars with a 20 gallon gas tank.

There are over 425,000 businesses in Michigan alone. If every business in Michigan recycled 1800 lbs. of paper every year we would save 145,350,000 gallons of gas.

Over 5 million tons of trash a day is produced in America alone.

Over 1.9 billion tons of trash is dumped into landfills in a single year.

Trash takes up thousands of acres across America.

America tosses more trash away than any other country. People throw out over 4.2 pounds a person per day.

There are already over 1600 landfills in America and growing.

More than 135,000 computers are disposed of every day. The landfills currently contain over a million computers and well over a half billion televisions, phones, and other electronics.

Nearly all trees are grown for paper making.

Over 32 million tons of trash is burned each year. All trash must be treated before burned. No glass, tires or metal can be burned. Only paper, food, leaves, grass, plastic, wood and other materials can be burned. All trash must be shredded and dried before burned.

Thank you for taking the time to find out how recycling can help you save money and help to keep the environment cleaner and safer!!!

Thank you for your help with recycling. Make sure all your confidential documents are shredded before they are recycled.

My Shredding Services (248) 387-9395 <u>http://www.myshreddingservices.com</u> <u>shredding@myshreddingservices.com</u>

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