

**NAME: UDONSI VICTOR**

**MATRIC NO: 18/ENG07/014**

**DEPT: PETROLEUM ENGINEERING**

**COURSE: ENTREPRENEURSHIP**

**(GST 212)**

**ASSIGNMENT**

Mid-Atlantic Recycling, LLC's area of business will be to collect, recycle/compost, and market waste from municipality waste processing plants for use as a consumer good. This recycled product will meet two critical needs:

1. It will give municipalities a feasible and cost effective alternative to landfilling the waste, and
2. It will help meet the growing demand for organic soil enhancers and fertilizers. The material that will be recycled is human waste sludge.

Our recycled waste will be targeted toward fertilizer manufacturers, nurseries, landscapers, farmers, government agencies, golf courses, and others. All of these potential customers will benefit from the compost's numerous soil enhancing characteristics.

Additionally, we will offer a service to waste processing plants owned by municipalities. Currently these plants face several issues regarding the disposal of human waste sludge. Landfills are filling up and costs of disposal are rising. Also, due to recent legislation, as of 2008 many landfills will no longer be able to accept human waste sludge. Mid-Atlantic Recycling will solve this problem by accepting this waste at a nominal charge and recycling it into a useful product.

One of the most attractive aspects is that the business is projected to attain a strong cash position and achieve profitability in the first year of operation. Due to a large need for these products and services, and a lack of direct competition, our projection of quick profitability is attainable.

Our in-depth research pertaining to human waste's positive soil enhancement characteristics and its many potential uses is well advanced. The concept has been tested on a small scale and the results, upon analysis, were found to be a high quality compost. Research will be an ongoing process for the company; one particular area of interest is the possibility of qualifying the product as a fertilizer. In this case, the profitability of the product would nearly double. Mid-Atlantic Recycling is working with the West Virginia University Cooperative Extension Service to investigate the feasibility of selling the material as fertilizer.

We already have an advance order for 500 tons, and one fertilizer manufacturer and a large landscaper have committed to purchasing 600 tons of our product annually. Additionally, various municipalities have expressed keen interest in paying us to accept their waste.

## **Objectives**

1. Flush sales for the first twelve months of operations and growing each year thereafter.
2. Establish the recycling facility in Monroe County, WV; to include six composting units in Year 1.
3. Open additional facilities in Year 2 and Year 3 to serve other areas of the state and the Mid-Atlantic region.
4. Continue to market Mid-Atlantic Recycling by contacting and soliciting business from additional municipalities and compost using customers.

## **Mission**

Mid-Atlantic Recycling's mission is threefold. Our first responsibility is to ensure the financial well-being of the business. Second, is to provide municipalities with an economical, alternative for the disposal of human waste sludge. Third, is to provide a top quality, recycled material to the consumer so that they may benefit from compost's many good properties and organic elements. In addition, we hope to build in the consumer a positive feeling about the feasibility of using recycled human sludge as a fertilizer.

Human waste sludge has long been a waste problem for municipalities which operate waste processing plants. In metropolitan areas that handle large amounts of waste, human sludge is generally disposed in volume at municipal landfills. Driven by state and federal mandates, recycling and composting of municipal solid waste has increased dramatically during the past decade. There are nearly ten thousand curbside recycling programs in America, and nearly 15,000 drop-off centers for recyclable material.

## **Keys to Success**

The keys to success in our business are:

- Overcome perception issues that may exist with using compost made from human waste sludge.
- Establish and build relationships and trust with customers to help shield from future competition.
- Expand rapidly to control the market.
- Offer reasonable prices.
- Get investment.

### **Company Summary**

The legal name of the company will be Mid-Atlantic Recycling, LLC. Mid-Atlantic Recycling will be formed as a Limited Liability Company in West Virginia. Due to its tax benefits, a LLC will be advantageous.

### **Company Ownership**

Mid-Atlantic Recycling is owned by its founder and president, Oliver Pyne. Mr. Pyne will be an active participant in management decisions.

### **Start-up Summary**

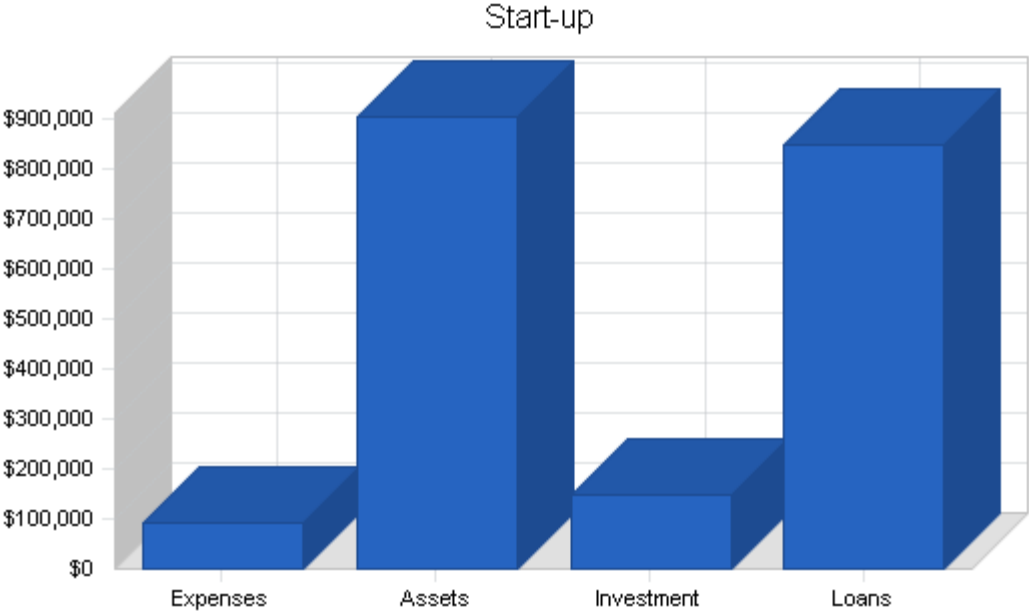
Our start-up costs will be \$1,000,000. The funds will be primarily used for the following:

#### **Capital Asset Purchases**

Processing Plants 2 x \$190,460	\$380,920
Processing Plants built in-house 2 x \$40,000	\$80,000
Sheds 48'x72' 4 x \$18,500	\$74,000
Skid Truck 2 x \$73,000 (avg price)	\$146,000
Backhoe	\$40,000

Front-end Loader 2 x \$50,000	\$100,000
Tandem Dump Trailer	\$6,000
<b>Total</b>	<b>\$826,920</b>

Detail of start-up assumptions are shown in the following tables and chart.



Start-up Requirements

Start-up Expenses

Legal	\$500
Phone/utilities deposits	\$500
Licenses/tax deposit	\$4,000
Insurance	\$1,000
Brochures/sales literature	\$500

Advertising	\$2,500
Employee salaries	\$16,680
Skid boxes, 15 @ \$3,000 ea.	\$45,000
Welding and cutting torch	\$10,000
Furniture and supplies	\$5,000
Website development	\$1,500
Miscellaneous	\$5,000
Total Start-up Expenses	\$92,180
Start-up Assets	
Cash Required	\$80,900
Start-up Inventory	\$0
Other Current Assets	\$0
Long-term Assets	\$826,920
Total Assets	\$907,820
Total Requirements	\$1,000,000

### **Company Locations and Facilities**

Mid-Atlantic Recycling will operate in Monroe County, WV, near the community of Lindside, WV. The Lindside location is approximately 10 miles from Peterstown, WV. The recycling facilities will be located on a 58+ acre property owned by company president, Oliver Pyne; 5 acres will be set aside for the recycling facility set up and operation. This site is ideal as it provides access to local municipalities and to Interstates 77 and 81. Also there is room for expansion as the business grows.

Additionally, Mid-Atlantic Recycling's business location is located in a federally designated "historically underutilized business zone" or HUBZone. As discussed under the Competitive Comparison section below, this designation gives Mid-Atlantic Recycling certain advantages in selling to the government.

As the business expands to additional counties in subsequent years, we will need to lease property on which to site our facilities.

### **Market Analysis Summary**

There are customers at both ends of our supply chain that will benefit from our services and products. Municipalities will benefit from our service by having an alternative means of waste disposal. Other potential customers who will benefit from our compost product include turf farms, fertilizer manufacturers, nurseries, landscapers, golf courses, homeowners, and even the federal government for use in highway construction reseeded. Therefore, we have two basic market segments; those waste treatment facilities which will benefit from our services and consumers who will benefit from our product.

Five major market segments for compost have been identified:

- Agriculture (for food and nonfood crops and sod farms).
- Landscapers (for industrial and commercial properties; golf courses, cemeteries, and athletic fields; landfill covers; and damaged soils).
- Nurseries (for plant and forest seedling crops and reforestation projects).
- Public agencies (for highway median strips, parks, recreational areas, and other public property).
- Residents (for home landscaping and gardening).

### **Web Plan Summary**

Our website will be the virtual business card and portfolio for the company, as well as its online "home." The website needs to be a simple, well designed, website that stays current with the

latest trends and provides information to the customers and information on our products and services. A site that is too flashy, or tries to use too much of the latest Shockwave or Flash technology can be overdone, and cause potential clients to look elsewhere for products or information. Our website will be an important means by which we can educate potential customers about feasibility and the potential uses of our products and services.

## **Management Summary**

Mr. Oliver Pyne is the mind behind Mid-Atlantic Recycling. He saw the need for human waste sludge to be recycled and used in several different and environmentally beneficial ways. With the development, determination, motivation, and persistence of everyone involved, Mid-Atlantic Recycling will be the leading producer of composted human waste sludge in West Virginia and a leader in the Mid-Atlantic region.

The management team of Mid-Atlantic Recycling will be comprised of the following executive positions:

- **President:** Oliver Pyne. Mr. Pyne has a degree in Agriculture from West Virginia University and has spent 30 years in the farming and agriculture industry. He has extensively researched and tested this composting process to ensure that it works with human waste sludge, and is thoroughly familiar with the process from start to finish. Mr. Pyne has experience in the operation, fabrication and maintenance of heavy equipment. This ability will be critical to the success of the business.
- **Operations Manager:** Sam Cole. Mr. Cole has operated a landscaping firm for 7 years and is intimately familiar with the uses of compost materials as well as the markets.
- **Controller:** Alexander Main. Mr. Main has a background in business and management and will handle administrative details such as taxes, check writing and bookkeeping.

At Mid-Atlantic Recycling, the management team believes that this unique way of recycling will change the way consumers look at fertilize and compost products. As with any company, the responsibilities and duties of the management team are very important and cannot be taken lightly. Mid-Atlantic Recycling's management will work together as a team to create a successful company.

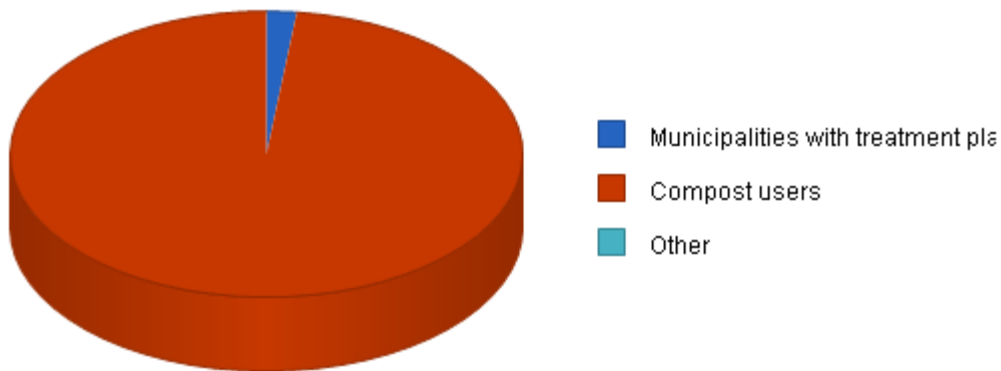


## Market Segmentation

The following table shows information regarding the number of potential customers in our target markets.

As reflected in the table, there are approximately 34 waste treatment plants in West Virginia. These are all potential customers for our collection service and sources of material for compost processing. Additionally, there are a total of 1,779 potential customers in the initial target market for our compost product. This includes 11 fertilizer manufacturers, approximately 30 sod/turf farms, 324 nurseries, 483 golf courses, and 931 landscapers.

Market Analysis (Pie)



## Market Analysis

		Year 1	Year 2	Year 3	Year 4	Year 5	
Potential Customers	Growth						CAGR
Municipalities with treatment plant	1%	34	34	34	34	34	0.00%
Compost users	5%	1,779	1,868	1,961	2,059	2,162	5.00%

Other	0%	0	0	0	0	0	0.00%
Total	4.91%	1,813	1,902	1,995	2,093	2,196	4.91%

### **Target Market Segment Strategy**

To target our customers, we examined the market trends. Mid-Atlantic Recycling's products target buyers of organic fertilizers and soil enhancers. This market has grown significantly in recent years and we expect to capture a quarter of this multibillion-dollar market.

This market growth is fueled by a more health conscious consumer. People are better informed about the potential side effects associated with chemical fertilizer products both to their health and to the environment.

According to an executive with the Scotts Co. in Marysville, Ohio, the pace of research into organic products continues feverishly, and their use is bound to increase.

Sales of organic foods have risen sharply. Organic food sales at the retail level totaled \$10.4 billion, according to Katherine DiMatteo, executive director of the Organic Trade Association. This year, retail sales of organic foods are expected to exceed \$15 billion — with more than \$32 billion projected by 2009 (*CNBC*, Dec. 3, 2004).

### **Market Growth**

The possibility of growth in this market is realistically huge. Consider the following simple facts:

- Municipalities must have an alternative means for disposing of human waste; we offer a great alternative to meet that need.
- Market trends are skewing more and more toward organic soil enhancements and away from chemical fertilizers; we meet this need as well.
- We have no direct competition in West Virginia and very little in the Mid-Atlantic region.

All of this means that Mid-Atlantic Recycling is poised to see tremendous growth.

## **Financial Plan**

Our financial plan is based on receiving several loans to purchase/fabricate the production equipment, provide initial operating capital, and establish the customer base.

We will achieve profitability early in the first year and due to the expected high growth rate, we will realize strong profits on sales by year three.

## **Start-up Funding**

The start-up funding will be provided as follows: Owner equity investment of in the form of a loan from the Regional Council of Governments Revolving Loan Fund; this loan is secured by the owner's real estate assets. The Regional Revolving Loan Fund is an economic development fund sponsored by three West Virginia counties: Mercer, Greenbrier, and Monroe.

Net Profit/Sales	18.00%	23.60%	25.83%
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