

**STEPHENSON ENTERPRISES: A BUSINESS  
PLAN**

by

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## **ABSTRACT**

A business plan serves two main functions: One is to provide a set of guidelines and expectations for running the business and the other would be to request funding from either a traditional or non-traditional lending source. Most business plans consist of the executive summary, business description, market analyses, management team, operations, and financial projections.

Stephenson Enterprises is in the process of obtaining funding for a start-up business that will manufacture a biodegradable low cost substitute loose-fill packaging material.

Due to the relatively high cost of this start-up, external funding is necessary. The first choice is to approach a large bank with the business plan, secondary choices if necessary would include smaller banks. The third choice would be alternative funding such as non-profit organizations that provide start-up funding, however many of these are limited in the amount they lend.

In order to garner funding for this entrepreneurship, it was decided that a business plan was needed. A business plan has two primary functions. One function is to set forth some guidelines as to how a firm is operated as well as what is projected. The second, and perhaps most often the reason a business plan is developed is to secure funding from a financial institution. Within the business plan a myriad of financial data was gathered to include: financial analysis, financial projections, cash flow, balance sheet, break-even analysis, sales proforma, income statements and sensitivity analyses.

In addition to the financial data, a market analysis was conducted to provide insight into the local market.

This business plan will not only provide an estimate of financials but will also serve as a guide book for operating the business.

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## ACKNOWLEDGMENTS

**We must walk consciously only part way toward our goal, and then leap in the dark  
to our success.**

**- Henry David Thoreau**

**The best way to predict the future is to create it.**

**- Peter Drucker**

**There's as much risk in doing nothing as in doing something.**

**- Trammell Crow**

All of the above quotes applied to me as I entered the graduate program and will continue to follow me as I follow through with this business plan. To that end I would like to thank the following people.

To my father, Edward Sr., who continually emphasized education and hard work. You are and will be missed.

I wish to thank, my wife, Raquel and my kids; Jenna, Julia, Jillian, Jacklyn and Chance for their understanding and patience while I took on the challenge of balancing work, school and family.

For their guidance and insight I'd like to thank Dr. Mike Woolverton and Dr. Arlo Biere.



To Lynnette Brummett, who persuaded me to look into and ultimately sign up for the program.

A final thank you goes out to the staff and faculty for sharing their knowledge with me throughout the program.

## **CHAPTER I: EXECUTIVE SUMMARY**

Stephenson Enterprises LLC, located in Weld County, Colorado plans to manufacturer a low cost, biodegradable alternative packaging material, called Milex, used primarily as loose fill.

Milex is an alternative loose fill material sourced from a specific variety of grain sorghum grown on the high plains, particularly in the panhandle of Texas. Grain sorghum was selected as an alternative medium such that minimal processing will achieve the necessary resin needed for conversion to loose fill.

The firm plans to take advantage of the increasing cost of petroleum and starch based products, by offering a low cost alternative in Milex. In addition to being lower in cost, Milex is also fully compostable and biodegradable. The marketing strategy would include targeting all potential users of EPS and starch based loose fill with the territory.

Stephenson Enterprises is owned and operated by Edward Stephenson, bringing years of sales and logistical experience along with an extensive network of potential users for the material. The firm proposes to borrow \$37,500 as start-up funds and plans to reinvest some earnings and repay the debt within the five year term. The firm expects repay the debt with an aggressive sales and marketing strategy as well as partnerships with local distributors.

Further expansion into other territories might include Colorado Springs, Colorado, Salt

Lake City, Utah and various locations in Southern California.

## **CHAPTER II: THE MARKET**

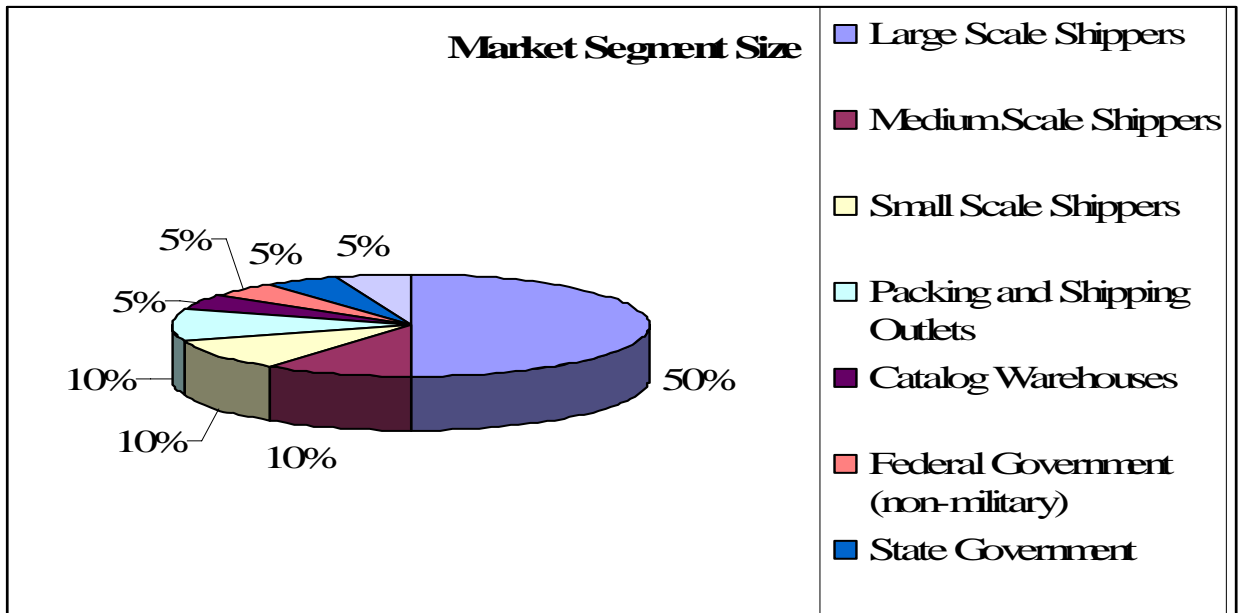
Milex was founded on the idea to offer an alternative to expanded polystyrene however with the recent upward pricing trends of expanded polystyrene and starch based materials; Milex is in position to gain a sizeable market share. MXT, LLC actively seeks out new affiliates to manufacture, sell and distribute the product, Milex. A strategically located affiliate throughout the country is the primary goal of MXT, LLC. MXT, LLC would ideally prefer to concentrate on developing new products utilizing grain sorghum. Due to the composition of the finished product it is not feasible to manufacture the product at one or a few locations nationwide, but rather a network of affiliates across the country to service the various manufacturing and shipping hubs. The high cost of transportation is the primary reason for implementing the affiliate network. MXT, LLC has roots founded in the early 1990's when the technology was developed, however it has been operating under MXT, LLC since 2004.

### **2.1 Overall Market Segments**

Packaging tells consumers all there is to know about the product inside. In the U.S. alone, packaging is a \$130 billion market, according to the Flexible Packaging Association. (www.news.thomasnet.com) The U.S. is the largest single market for biodegradable packaging, and this is expected to continue to 2011, where the market is estimated at more than 44,000 metric tons. (www.packagingdigest.com). Current market segments consist of large, medium and small scale users. The size of the user is determined by the amount of material they currently use. The large scale users would utilize over 4800 cubic feet of

material. Medium scale users would utilize 3600 cubic feet and small scale users would utilize 2400 cubic feet. The majority of which would be manufacturers of various products throughout the territory, such as Water Pik, Maxtor, Hach Instruments, Sandoz Pharmaceuticals and Lockheed Martin, all of which would be consider large scale users. Packing and shipping outlets such as The UPS Store, Fedex Kinkos and a multitude of ‘mom and pop’ shops comprise another segment. Catalog warehouses within the territory comprise an additional segment; these would include those retail outlets such as Cabelas and Sierra Trading Post. Cabela’s alone would utilize over 12,500 cubic feet of Milex per month. The remaining market segments would consist of state and federal governments to include the military.

**Figure 2.1 Market Segment Size**



## **2.2 Market Potential**

The market potential for Milex would rank high for the territory. With few competitors in the area and the current pro-environmental focus of state leadership, Stephenson Enterprises sees this as an opportune time to enter the market with an alternative 'green' packaging material. Add in the increasing high cost of petroleum based products, as well as starch based products; Stephenson Enterprises stands to gain a solid market share.

## **2.3 Segmentation**

Since the market segment for Milex will be wide and vary a great deal, Stephenson Enterprises will enter into discussions with one or two distributors. This will allow for maximum exposure throughout the territory.

Due to the high cost of transportation for a bulky, yet light product it would be economically sound that the general service area would be concentrated within a 100 mile radius from the plant location. However, should a potential customer be interested outside of this range, possible solutions, such as back-hauling, the hiring of an empty trailer already headed in the direction of the customer to deliver the product may be an option.

The expected market for Milex will be quite diverse, while Stephenson Enterprises can feasibly cover a one service area, it is hoped that in time, profits will allow for further expansion into other geographical areas such as Salt Lake City, Utah.

## **2.4 The Product**

Milex is a product based on grain sorghum as an alternative material to petroleum based products such as EPS and starch based loose fill. A specific variety of grain sorghum is

utilized in the manufacturing process. These crops are specifically grown, under contract, for MXT, LLC, They are further processed at their facility in Pampa, Texas and shipped to affiliates across the country. The only processing required of the raw grain is a patented de-hulling process covered by US patents 5820039 and 5713526. Due to the minimal processing this material receives it can be offered at a much lower cost than other biodegradable alternatives such as those raw materials based on various starches. Milex, is less costly than the two major alternatives, performs the same, if not better, and is completely biodegradable unlike starch which is biodegradable except for low levels of a few innocuous additives (Shi, B). In addition Milex is completely both biodegradable and compostable as defined by the American Society for Testing and Materials (ASTM). Studies have shown that Milex performs the same if not than polystyrene and starch based loose fill.

## **2.5 Alternatives**

One of the main reasons Milex was developed is to provide an environmentally friendly alternative to the polystyrene based material. Additionally it can compete at a lower cost and provide a higher quality product than starch based loose fill packaging material. With the recent upward pricing trends of both petroleum based products and starch based products, Milex is positioned to gain a sizable market share. While grain sorghum prices have increased as well, the price for the resin still remains low due to the minimal processing when compared to starch based resins.

Milex offers increased performance and lower overhead costs, while allowing the current

users of EPS and starch based loose fill to use their existing equipment. In addition the eco-friendly profile of using biodegradable products can be used as a positive public relations tool.

If the buyer wished to avoid polystyrene and starch based loose-fill other alternatives would include paper, shredded corrugated cardboard or air pillows, none of which are readily biodegradable and are more costly to recycle.

## **2.6 Competitive Analysis**

ACH Foam Technologies is self described as an industry leader in Expanded Polystyrene (EPS) manufacturing, providing products for construction, geotechnical, packaging, and industrial applications. They have 10 locations nationwide and carry a diverse line of petroleum based foam products ([www.achfoam.com](http://www.achfoam.com)). With the corporate office in Denver, they are the primary supplier of EPS within the state. ACH focuses more upon the large scale users of EPS, such as the construction industry and other architectural applications. They are the primary supplier of EPS loose fill to the region. ACH does not pose a major threat to Stephenson Enterprises' as the cost of their product is higher and continues to increase. As of March 2008, expanded polystyrene (EPS) resin has been hovering around \$0.85 - \$0.90 per pound with a great deal of upward pressure. ([www.ptonline.com](http://www.ptonline.com))

While the expanded polystyrene industry can claim that their product can be recycled, recent studies have shown a downward trend in recycling. In fact, not all EPS can be recycled, specific guidelines regarding the type of EPS and contaminants limit the



collection efforts ([www.epsmolders.org](http://www.epsmolders.org)). It is estimated that about 30% of EPS is reused ([www.loosefillpackaging](http://www.loosefillpackaging)). Additionally, the consumer must either seek out a recycling facility or ship the EPS to a recycling facility making it less convenient to recycle. Finally, the claim of bio-degradability is virtually non-existent with polystyrene products.

Uline is a catalog shipping supply specialty store. They carry a variety of packaging material that includes EPS and starch based loose fill. Prices range from \$1.25 - \$1.50 per cubic foot. Since all products come from one of six regional distribution points, additional transportation costs will be added to the cost. One strategy that is implemented by Uline is a one stop shopping outlet for all your shipping needs.

Corru-fill is the by-product of old corrugated cardboard. The concept takes old corrugated cardboard (OCC) and shreds it to create a packaging material. In order to manufacture this product a firm would have to purchase the shredding equipment from the manufacturer and maintain a steady supply of corrugated cardboard to supply their shipping needs. While this product is recyclable, it is not readily biodegradable. For commercial customers the disposal of Corru-fill may become an issue in that, if it is not reused, it cannot be easily recycled with the other corrugated products that are usually placed in a baler and then recycled. This will therefore create a disposal problem for large scale users. Additionally, the receiver may not be keen on the idea of dealing with the disposal of shredded corrugated at their location. Corru-fill's ideal users would be self-sustaining firms that receive large amounts of corrugated cardboard and ship out enough material to 'reuse' the

OCC as a shredded packaging material. In May of 2004, Corru-fill was licensed to Eco-Pak of Colorado, a small firm located in Centennial, Colorado, to service the Denver area market. According to the parent company's website, a promotional tool employed at this location was a "free recycling presentation" to local firms ([www.corru-shred.com](http://www.corru-shred.com)).

Advantages for using Milex would be its low cost, biodegradability, its anti-static properties, it can be used with the same equipment currently used for EPS or starch based loose-fill, it will not shrink with high humidity, and it has the ability to absorb oil.

## **2.7 Competitive Advantage**

The competitive advantage of Milex would be its lower cost to the user and the quality attributes associated with the product. With regard to petroleum products, Milex has a competitive advantage such that the increasing price of petroleum has caused users of EPS to seek alternative materials, such as starch based products. Since the grain sorghum is purchased under contracts with local farmers and not purchased on the open market, Milex can gain the competitive advantage from starch based users who have to source their raw materials from processors such as Cargill, Midwest Grain Products and others. Another advantage Milex has is that it requires fewer additives than starch based products in such that the only additive needed is polyvinyl alcohol. Starch based products require additional ingredients such as copolymers, nucleating agents and blowing agents. These all increase the cost of starch based loose fill. Current pricing is shown in table 2.2.

**Table 2.2 Current Pricing (Raw Materials)**

<b>Product</b>	<b>Price as of 3/24/2008</b>
Polystyrene	\$0.85/lb
Wheat Starch (Midol 50) <sup>1</sup>	\$0.30/lb
High Amylase Corn Starch (Amylogel 03001) <sup>2</sup>	\$0.76/lb
Native Starch 03420 <sup>3</sup>	\$0.41/lb
Milex	\$0.25/lb

\* All prices quoted fob terms

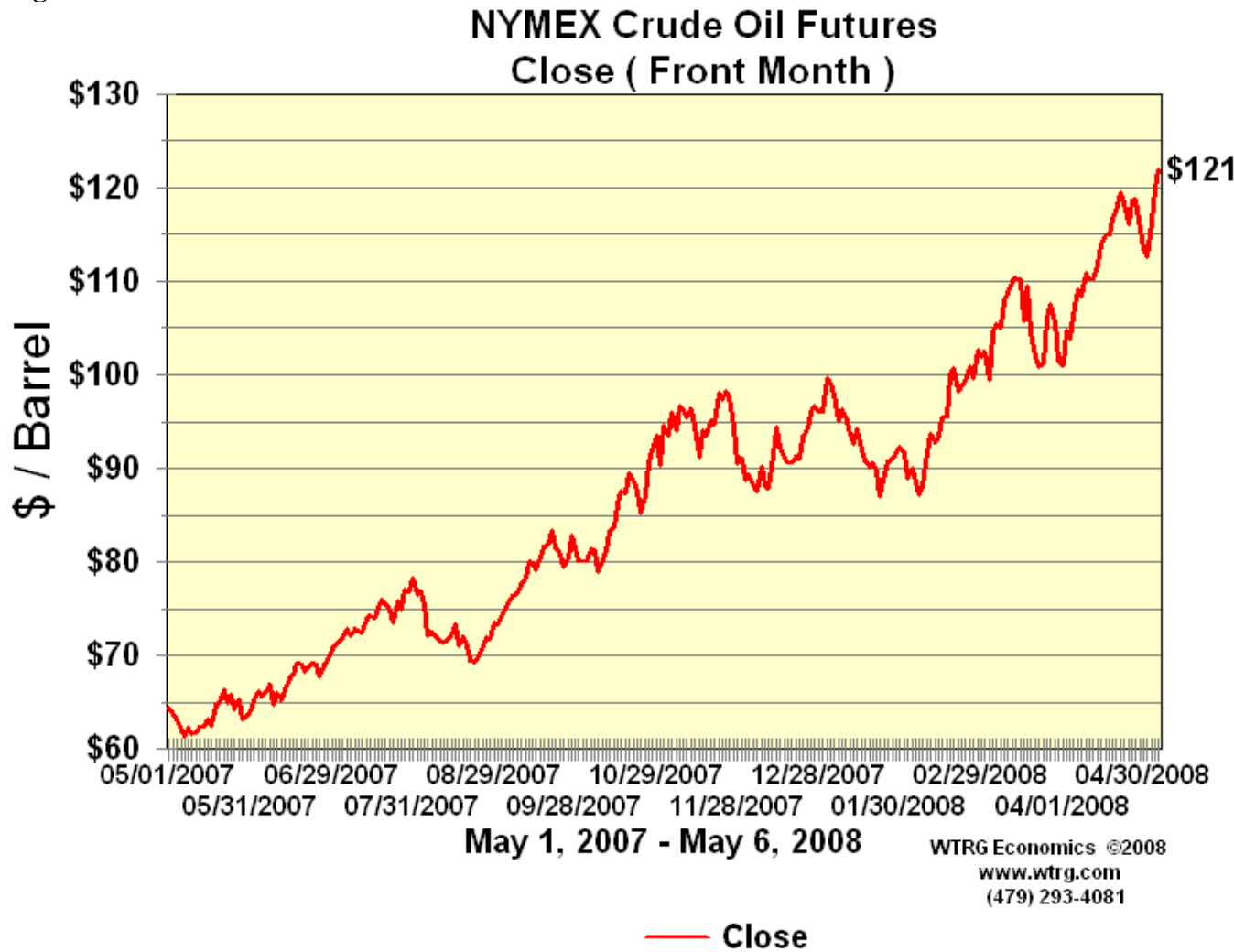
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<sup>1</sup> Midwest Grain Products

<sup>2</sup> Cargill

<sup>3</sup> Cargill

Figure 2.2 Recent Oil Prices



**Figure 2.3 Recent Corn Prices**  
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[http://www.cattlenetwork.com/Charts\\_Content.asp?contentid=199557](http://www.cattlenetwork.com/Charts_Content.asp?contentid=199557)

## **CHAPTER III: MARKETING PLAN**

The marketing strategy will apply both SWOT and the Red Ocean Strategy.

Strengths would include biodegradability; eco-friendly; low cost; supports American farmers; and no need to replace current equipment for EPS of starch based loose fill products.

Weaknesses - limited delivery area; limited initial cash flow; Colorado is a net user rather than producer.

Opportunities - current 'green' focus of the state; any firm that ships goods and wants to be eco-friendly and reduce costs.

Threats - recyclable claims from alternative products; initial cash flow.

Regarding Red Ocean strategy, it is understood that the firm is entering into an industry dominated by polystyrene; the objective is to gain a 20% local market share by touting the positive attributes of the product. This can be achieved by offering a better product at a lower cost, while allowing the user to make the claim of utilizing eco-friendly products.

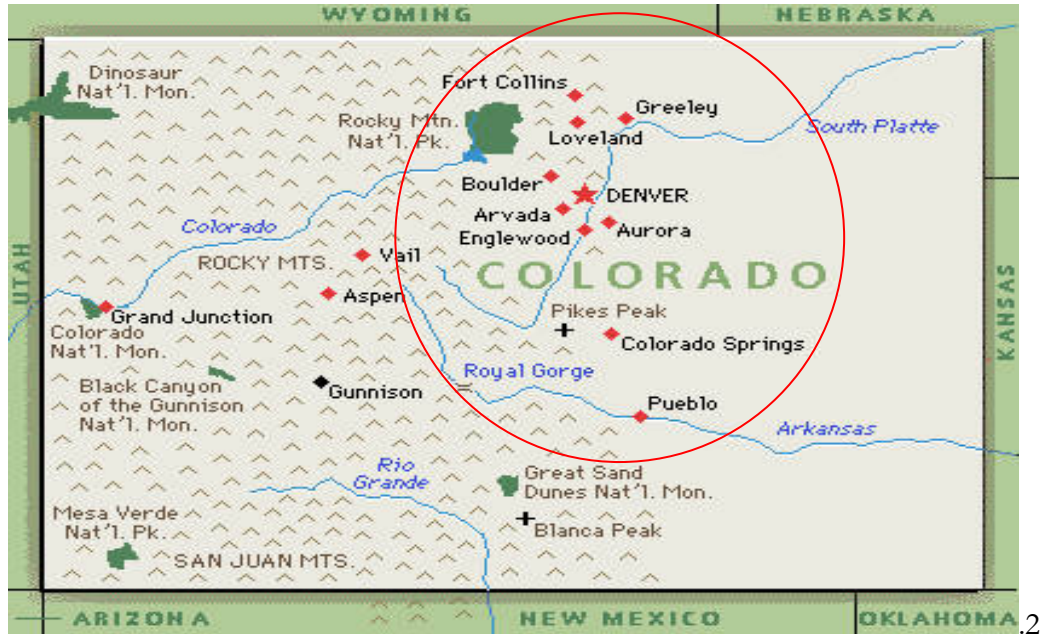
### **3.1 Target(s)**

The proposed sales area will include a 100 mile radius from the plant. Based on this projection, the plant will cover an area that is bordered to the south by Colorado Springs, Colorado to the west by Vail, Colorado to the north by Chugwater, Wyoming and to the east by Sterling, Colorado. This area includes the cities of Denver, Colorado Springs, Aurora, Golden, Boulder, and Loveland, Colorado as well as Laramie, Wyoming. All of which would be potential markets. Exceptions can be made to any potential customer outside of this area should it prove economical to service them. In addition, any further



Kingdom.

**Figure 3.2 Colorado Service Area**



Promotion

It is anticipated that the firm will utilize a push strategy to promote the product. The plan is to present the product to potential users, offer a trial period and gain the business thereafter. Implementation of a pull strategy, in such that we will provide brochures outlining our product and its benefits on a limited basis may also be incorporated. It is encouraged that the customers place an informative brochure with the packaging material stating what it is, how to dispose of it and the benefits of using such a product. Additional promotional plans may include attendance at trade shows, personal selling, sponsorships, and local advertising, possibly through the local chambers of commerce and other business associations, such as the Colorado Association of Commerce and Industry.



When possible, attendance at trade shows will be held in conjunction with MXT, LLC to minimize costs.

### 3.3 Pricing

Since the cost of raw materials is lower than the competitors pricing Milex will be aggressive. The expected price will be lower than the competition in order to capture as much market share as possible. It can be expected that polystyrene and starch based loose-fill materials will continue to rise in price thus providing an opportunity for us to capture more market share. Due to the high initial cost of Corru-fill, the pricing strategy employed by Stephenson Enterprises will be attractive to the potential user. Based on today's prices the cost of manufacture is \$0.42. The initial recommended retail price of \$0.85, twice the cost of manufacture. However, the final pricing will be determined by the volume and frequency of the orders. The chart below shows a comparison of the price versus the projected prices of the competitors.

**Table 3.1 Pricing Comparisons**

	Yr 1	Yr 2	Yr 3
Product Retail Price	\$0.85	\$0.85	\$0.85
*per cubic foot			
Competing Product Name	Product Price		
Polystyrene	\$1.25	\$1.30	\$1.35
Starch based	\$1.50	\$1.55	\$1.55
Corru-fill	\$1.10	\$1.10	\$1.10
*per cubic foot			

During the first year it is expected that the majority of sales are directly to the end user, however, the objective is to make the largest percentage of the sales through distributors. This will greatly reduce the transportation overhead. Incentives will be offered to the distributors that may result in an average selling price (ASP) well below suggested retail price. The chart below shows the projections for distribution channel usage and the effect on the product's ASP over a three year period.

**Table 3.2 Distributor Discount Price Forecast**

	Yr 1	Yr 2	Yr 3
Retail Price	\$0.85	\$0.85	\$0.85
Calculated ASP	\$0.75	\$0.72	\$0.68

**Table 3.3 Projected Distributor Volumes by Markets**

Channel	Disc.	Yr 1	Yr 2	Yr 3
		% of Total Volume		
Large Scale Shippers		25%	35%	35%
Medium Scale Shippers		10%	07%	05%
Small Scale Shippers		10%	05%	03%
Packing and Shipping Outlets		25%	15%	10%
Catalog Fulfillment Warehouses		05%	03%	02%
State Entities		05%	03%	03%
Military		05%	05%	05%
Federal Government		05%	02%	02%
Distributor		10%	25%	35%

### **3.4 Sales**

Stephenson Enterprises will operate as a one man operation during the initial stage of customer development. The owner/operator will split time between sales activity and plant operations. At such a time the volume or need justifies, the addition of another person will be evaluated.

### **3.5 Distribution**

The current distribution of the product will be conducted in-house and on regularly scheduled intervals for the customers. Expedited delivery off the normally scheduled delivery will be available at a higher rate. Stephenson Enterprises would be open to the

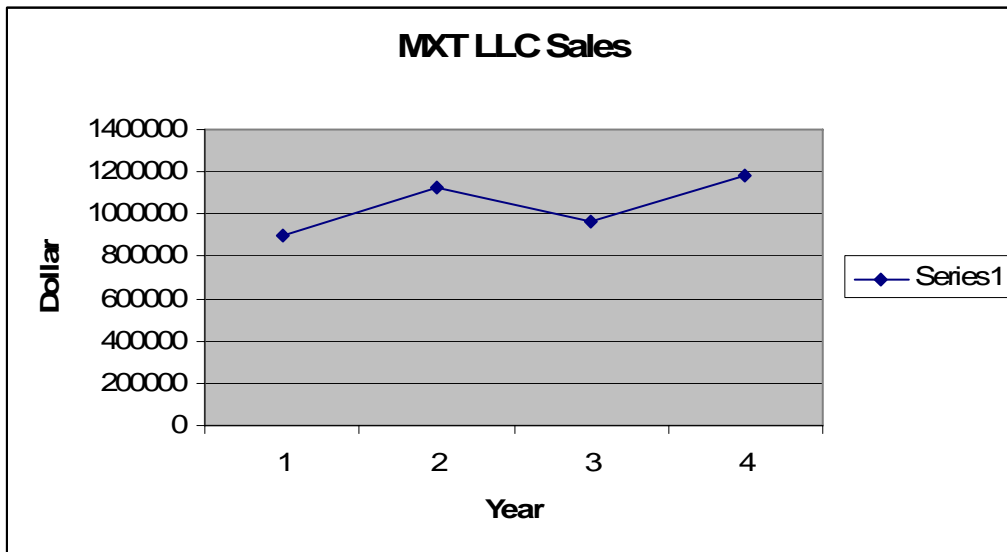
ideal of partnering with one or two local distributors in the area. One such distributor could be Neway Packaging, a distributor of industrial packaging systems and supplies based in Commerce City, Colorado. Another possible distributor would be Eco-Products an earth-friendly retail firm located in Boulder, Colorado. Corporate Express, which has its United States headquarters located in Broomfield, Colorado, might be an additional possibility. To service the Colorado Springs area, a partnership with The IPI Group, a packaging supply company will be considered. All four of which are based within the 100 mile service area.

The distributor(s) would be free to expand beyond the 100 mile radius provided they do not interfere with the other affiliates' territories and the direct sales customers of Stephenson Enterprises.

## **CHAPTER IV: OPERATIONAL PLAN**

Stephenson Enterprises will be an independently owned affiliate of MXT, LLC based in Pampa, Texas. MXT, LLC holds the proprietary technology to produce the resin and manufacture the finished product. While relatively new to the industry, MXT, LLC has been producing the product since 2004 however the principles of Milex have been using this technology since 1990. Under agreement with MXT, LLC, Stephenson Enterprises is granted permission to utilize the logo and brand name of Milex. Territorial rights are secured with a deposit and the intent to place a manufacturing facility in the given area. Stephenson Enterprises currently holds the exclusive rights for the State of Colorado. Research and development of new products will be fully funded and conducted at the corporate location in Pampa, Texas. Once new products come on line, the affiliate has the first right of refusal to invest and expand upon this new technologies in the given territory. All input requirements are to be sourced from MXT, LLC. This would include the resin, PVOH, and bags. There is no minimum purchase required by MXT, LLC. The growth rate of MXT, LLC has been steadily rising over the past years as more affiliates are added. With 2004 being represented as year one, 2005 as year two, 2006 as year three and 2007 as year four.

**Figure 4.1 MXT LLC Sales 2004-2007**



#### **4.1 Organization Design**

Stephenson Enterprises will be operated by Edward Stephenson. Previous employment includes Federal Express and Hayashibara International. Drawing upon these experiences and contacts will allow Edward to move forward with this new venture and to further develop the client list.

Edward will be involved in the manufacturing, sales and delivery of the product. Should demand exceed one persons' capability, the addition of another person will be investigated. Stephenson Enterprises will lease an office and manufacturing space which will meet the current needs and allow for possible expansion. The lease commences on May 1, 2008 and renews annually. Medical and dental insurance will be investigated in the future as profits allow.

## **4.2 Operations**

Stephenson Enterprises would ideally lease a 3,000 square foot building containing both office and manufacturing space. However, a plant of smaller size, no less than 2,000 square feet, can be utilized if necessary. The majority of the office furniture has been purchased and has value of \$4000. One major investment in equipment would be a forklift. Current equipment includes a 2007 Chevrolet Suburban, a 2000 Dodge Ram 1500, office equipment and various tools. The manufacturing equipment will be leased on a 7 year term from MXT, LLC for \$4,000 per month.

#### **Table 4.1 Leased Equipment**

- 2 - 1500 cubic foot overhead hoppers
- 2 - Slide gates for air transfer
- 1- 3 hp Quickdraft air movement system
- 1 -5 hp Quickdraft air movement system
- 1 - 6" piping from tumbler to overhead storage bags
- 1 - 10" piping from tumbler to overhead storage bags
- 1 - 12 cubic foot bagger
- 1 - 26' x 6' tumbler and accessories
- 1 - 42" evaporative cooler
- 1 - 500 cubic foot overhead hopper
- 1 - Automatic bag tie machine
- 1 - Maddox Baked Type 75 hp Extruder
- 1 - Machine instruction manual with Milex inserts
- 1 - Mobile attachment of 3hp Quickdraft
- 1 - Pair of hot operations gloves
- 1 - Quick connect for 6" and 10" piping
- 1 - Sudenga 1100 pound ribbon/paddle blender
- 1 - Transition air movement system from extruder to tumbler
- 1 - Universal elevator leg
- 1 - Work table
- Tools and extruder dies and tooling set-up



### **4.3 Production**

Milex is produced by taking de-hulled grain sorghum and mixing it with polyvinyl alcohol in a ribbon/paddle mixer. Once a suitable mixture is achieved the product is fed into an extruder where it is heated and extruded through predetermined dies to manufacture the Milex loose fill pellets. The extruded product is then placed in a tumbler to remove any fine particles and to speed up the drying and curing process. Once Milex has passed through the tumbler it is blown into large overhead bags to complete the drying process. After a full day of drying, the pellets are then moved to smaller overhead bags for distribution to the bagging machine. The placement of Milex pellets into 12 cubic foot bags is the final stage before the product is sold and delivered to the customer.

## CHAPTER V: FINANCIAL PLAN

The financial objective is to become profitable within the first year and be self sustaining thereafter due to the low overhead and cost of manufacturing. Utilizing a background in sales and a network within the shipping industry it is the goal to gain 20% market share within the first three years. A strong work ethic, drive, and no quit attitude will assist in providing a high quality product and excellent service at very competitive prices.

Financial projections for the next three years are as follows:

**Table 5.1 Financial Projections**

	FINANCIAL PROJECTIONS (000's)		
	Yr 1	Yr 2	Yr3
REVENUE	\$291	\$934	\$1459
PROFIT BEFORE TAX	\$91	\$531	\$901
PBT %	8%	51%	57%
NET PROFIT	\$68	\$398	\$676

As shown in Table 10.3, we can estimate a small profit for the first year of operations. The second year it is projected that the firm would become more profitable. The current facilities, to be located in Weld County, Colorado<sup>i</sup>, are expected to be adequate for the first three years of production.

### 5.1 Capitalization

To date \$12,500 has been invested into the business from the personal finances of Edward

Stephenson. These funds have been used to secure the territorial rights, purchase office equipment, open a bank account, print and prepare a business plan, computers and office furniture. The loan of \$37,500 will be utilized to purchase a forklift, secure a manufacturing location, set-up a company website, purchase initial inventory, lease or purchase a delivery vehicle, purchase and develop marketing tools, licenses, insurance, and additional operating expenses.

## **5.2 Profit Analysis**

The following tables 5.2 through 5.4 demonstrate three year profit projections.

**Table 5.2 Year One Income/Expense**

	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	TOTAL
<b>Revenue:</b>													
Product/Service Sales	8,160	10,880	10,880	10,880	21,760	21,760	21,760	32,640	32,640	32,640	43,520	43,520	291,040
<b>Total revenue</b>	<b>\$8,160</b>	<b>\$10,880</b>	<b>\$10,880</b>	<b>\$10,880</b>	<b>\$21,760</b>	<b>\$21,760</b>	<b>\$21,760</b>	<b>\$32,640</b>	<b>\$32,640</b>	<b>\$32,640</b>	<b>\$43,520</b>	<b>\$43,520</b>	<b>\$291,040</b>
<b>Expenses:</b>													
<b>Cost of goods sold</b>													
Production Expenses	17,040	2,560	2,560	2,560	5,120	5,120	5,120	23,056	7,680	7,680	25,616	10,240	114,352
<b>Gross margin</b>	<b>(\$8,880)</b>	<b>\$8,320</b>	<b>\$8,320</b>	<b>\$8,320</b>	<b>\$16,640</b>	<b>\$16,640</b>	<b>\$16,640</b>	<b>\$9,584</b>	<b>\$24,960</b>	<b>\$24,960</b>	<b>\$17,904</b>	<b>\$33,280</b>	<b>\$176,688</b>
Operating Expenses	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	27,600
Equipment Lease	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Other Expenses	2,500												2,500
Depreciation	417	417	417	417	417	417	417	417	417	417	417	417	5,000
Loan Payment	281	278	274	270	266	262	258	255	251	247	243	239	3,123
Interest													0
<b>Total Operating Expenses</b>	<b>\$9,498</b>	<b>\$6,994</b>	<b>\$6,990</b>	<b>\$6,987</b>	<b>\$6,983</b>	<b>\$6,979</b>	<b>\$6,975</b>	<b>\$6,971</b>	<b>\$6,967</b>	<b>\$6,963</b>	<b>\$6,959</b>	<b>\$6,955</b>	<b>\$86,223</b>
Pre-Tax (\$)	(\$18,378)	\$1,326	\$1,330	\$1,333	\$9,657	\$9,661	\$9,665	\$2,613	\$17,993	\$17,997	\$10,945	\$26,325	\$90,465
Pre-Tax (%)	-225.22%	12.19%	12.22%	12.26%	44.38%	44.40%	44.42%	8.00%	55.12%	55.14%	25.15%	60.49%	31.08%
<b>Net Profit</b>	<b>(\$18,378)</b>	<b>\$1,326</b>	<b>\$1,330</b>	<b>\$1,333</b>	<b>\$9,657</b>	<b>\$9,661</b>	<b>\$9,665</b>	<b>\$2,613</b>	<b>\$17,993</b>	<b>\$17,997</b>	<b>\$10,945</b>	<b>\$26,325</b>	<b>\$67,849</b>

**Figure 5.1 One Year Revenue**

**2008**

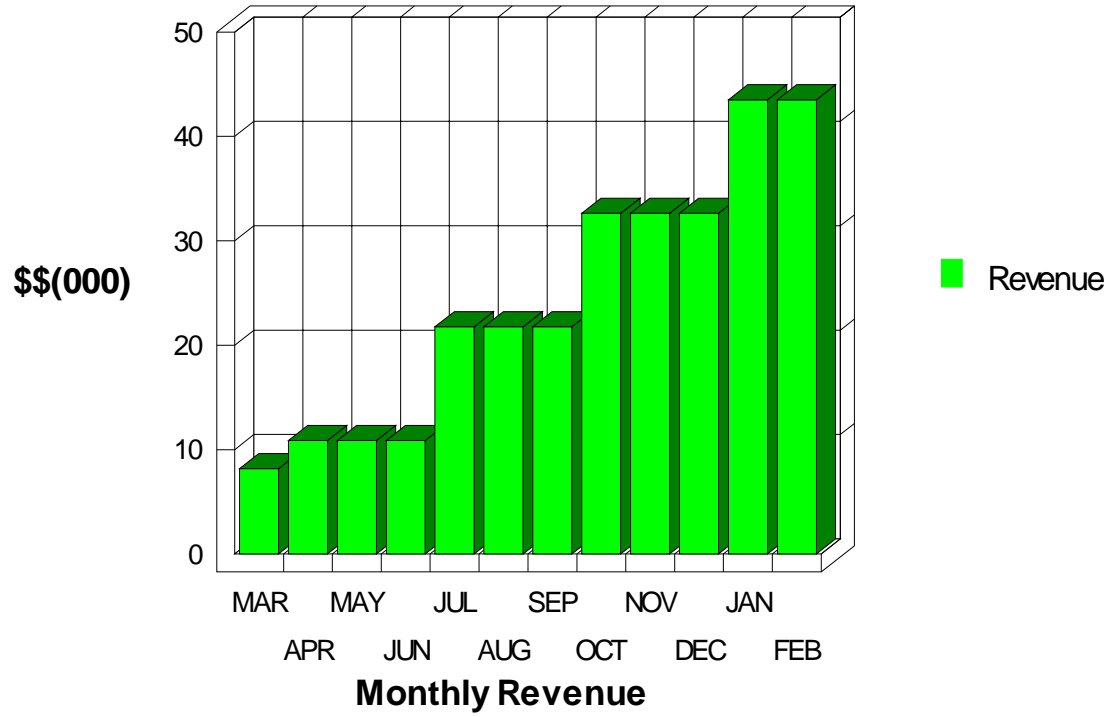
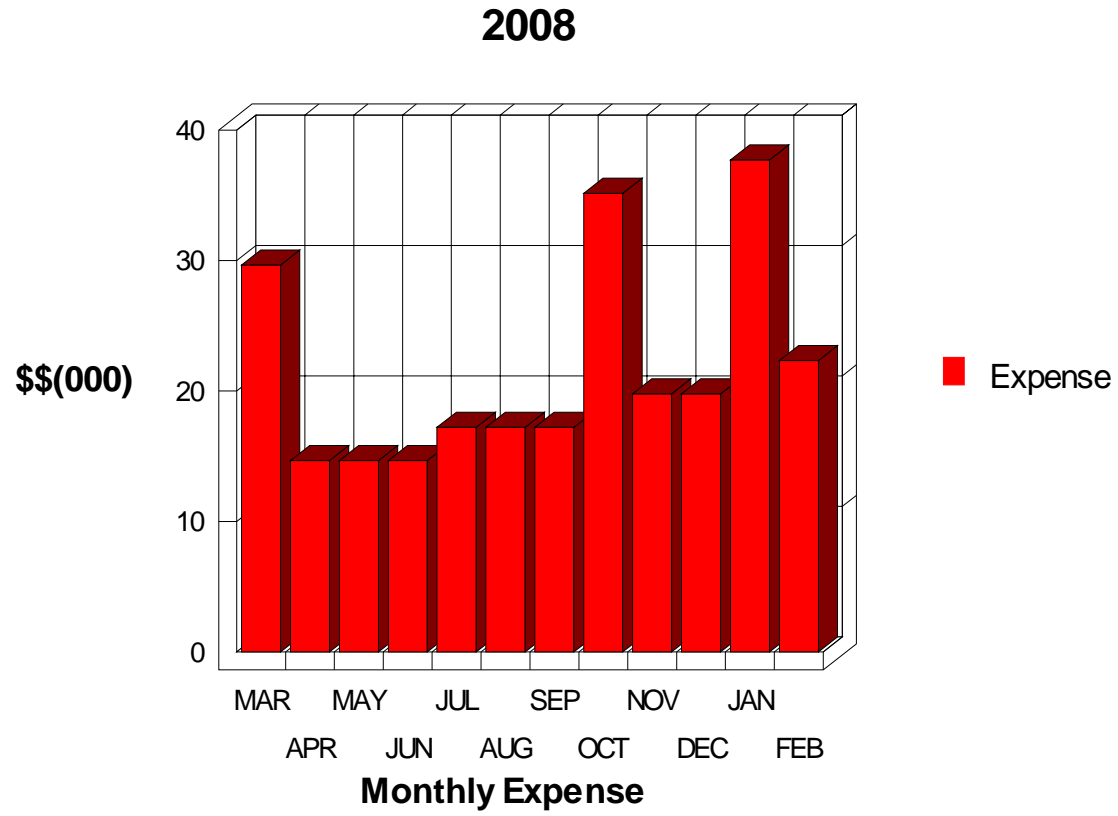


Figure 5.1.1 One Year Expense



**Table 5.3 Year Two Income/Expense**

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total</b>
<b>Revenue:</b>					
Product/Service Sales	174,080	206,938	250,520	302,309	933,847
<b>Total revenue</b>	<b>\$174,080</b>	<b>\$206,938</b>	<b>\$250,520</b>	<b>\$302,309</b>	<b>\$933,847</b>
<b>Expenses:</b>					
<b>Cost of goods sold</b>					
Production Expenses	56,080	78,931	74,065	101,370	310,446
<b>Gross margin</b>	<b>\$118,000</b>	<b>\$128,007</b>	<b>\$176,455</b>	<b>\$200,939</b>	<b>\$623,401</b>
Operating Expenses	9,300	9,300	9,300	9,300	37,200
Equipment Lease	12,000	12,000	12,000	12,000	48,000
<b>Other Expenses</b>					
Depreciation	1,250	1,250	1,250	1,250	5,000
Loan Payment Interest	692	654	616	577	2,539
<b>Total Operating Expenses</b>	<b>\$23,242</b>	<b>\$23,204</b>	<b>\$23,166</b>	<b>\$23,127</b>	<b>\$92,739</b>
Pre-Tax (\$)	\$94,758	\$104,803	\$153,289	\$177,812	\$530,662
Pre-Tax (%)	54.43%	50.64%	61.19%	58.82%	56.83%
Fed. Tax Provision					132,665
<b>Net Profit</b>	<b>\$94,758</b>	<b>\$104,803</b>	<b>\$153,289</b>	<b>\$177,812</b>	<b>\$397,996</b>

**Figure 5.2 Two Year Revenue**

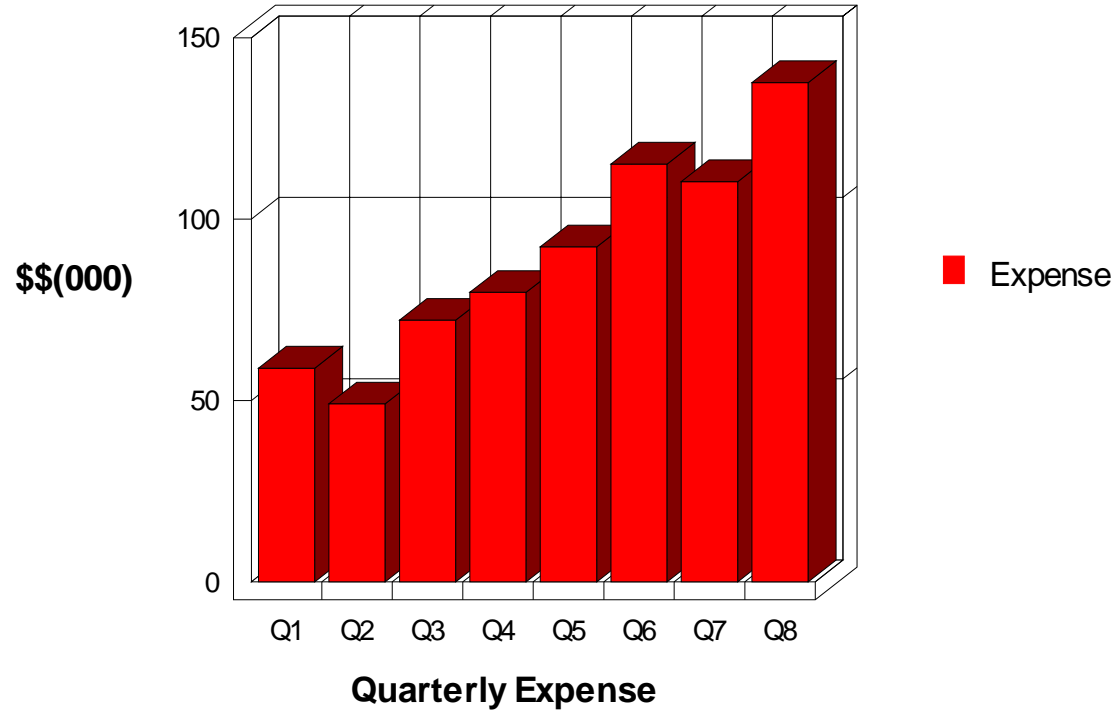
**2008 / 2009**





Figure 5.2.1 Two Year Expense

2008 / 2009

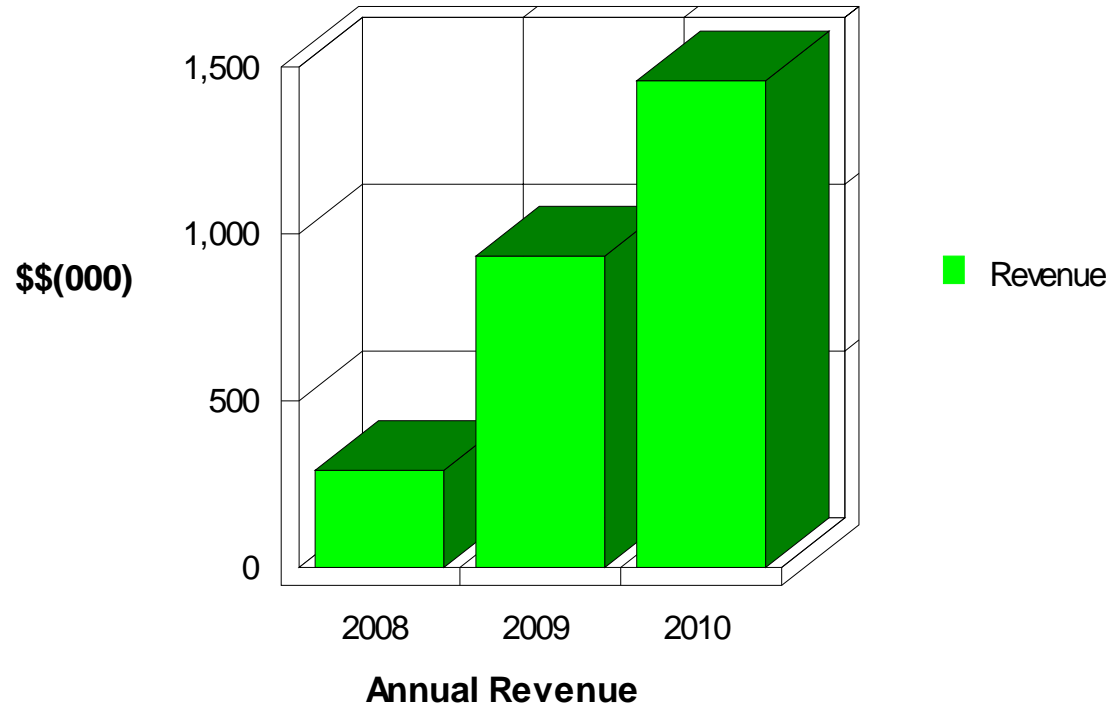


**Table 5.4 Year Three Income/Expense**

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Revenue:</b>			
Product/Service Sales	291,040	933,847	1,459,183
<b>Total revenue</b>	<b>\$291,040</b>	<b>\$933,847</b>	<b>\$1,459,183</b>
<b>Expenses:</b>			
<b>Cost of goods sold</b>			
Production Expenses	114,352	310,446	465,686
<b>Gross margin</b>	<b>\$176,688</b>	<b>\$623,401</b>	<b>\$993,497</b>
Operating Expenses	27,600	37,200	37,200
Equipment Lease	48,000	48,000	48,000
Other Expenses	2,500		
Depreciation	5,000	5,000	5,000
Loan Payment Interest	3,123	2,539	1,901
<b>Total Operating Expenses</b>	<b>\$86,223</b>	<b>\$92,739</b>	<b>\$92,101</b>
Pre-Tax Income	\$90,465	\$530,662	\$901,396
Pre-Tax (%)	31.08%	56.83%	61.77%
Fed Tax Provision	22,616	132,665	225,349
<b>Net Profit</b>	<b>\$67,849</b>	<b>\$397,996</b>	<b>\$676,047</b>

**Figure 5.3 Three Year Revenue**

**2008 thru 2010**



**Figure 5.3.1 Three Year Expense**

**2008 thru 2010**

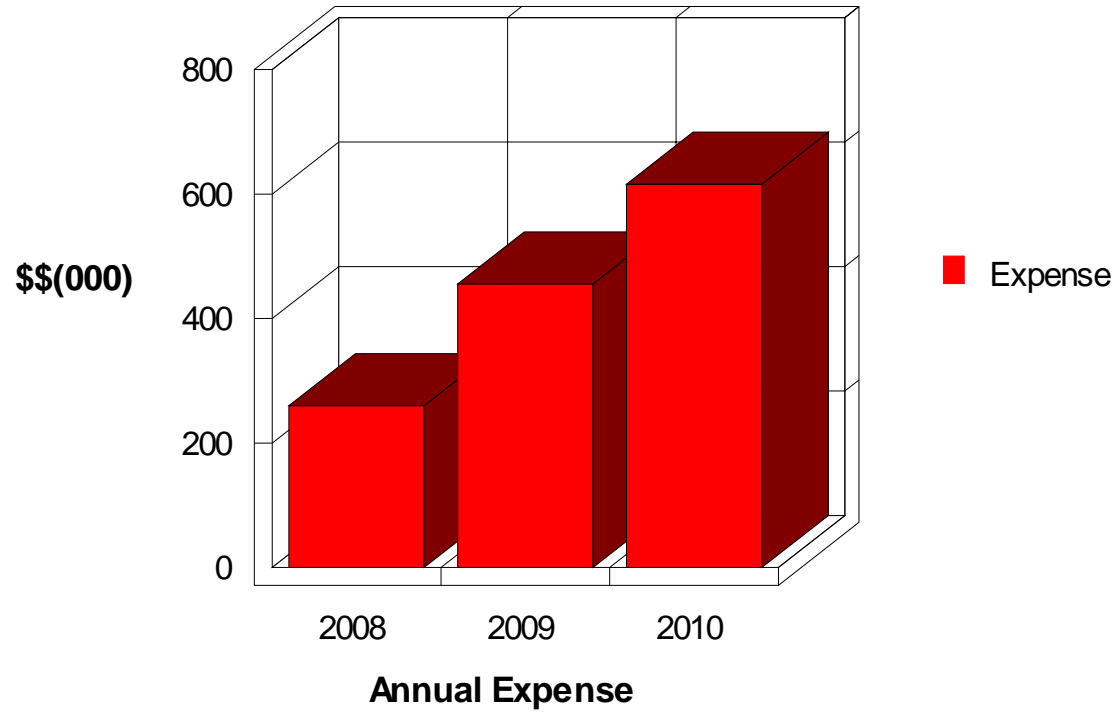
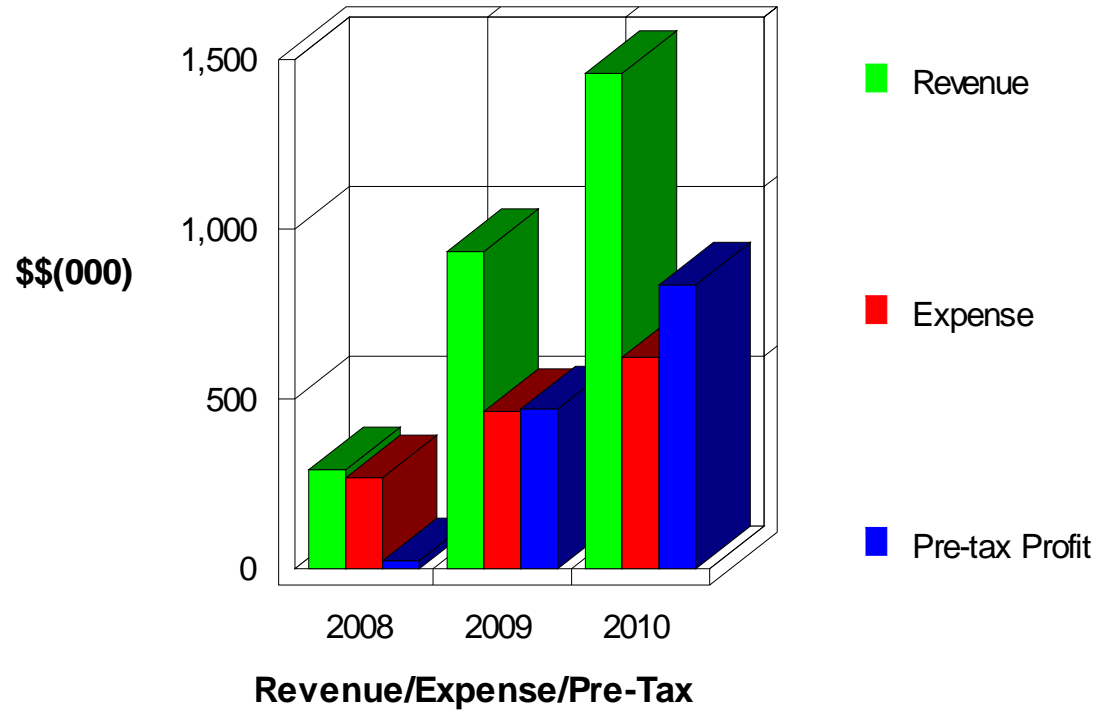


Figure 5.3.2 Three Year Profit & Loss

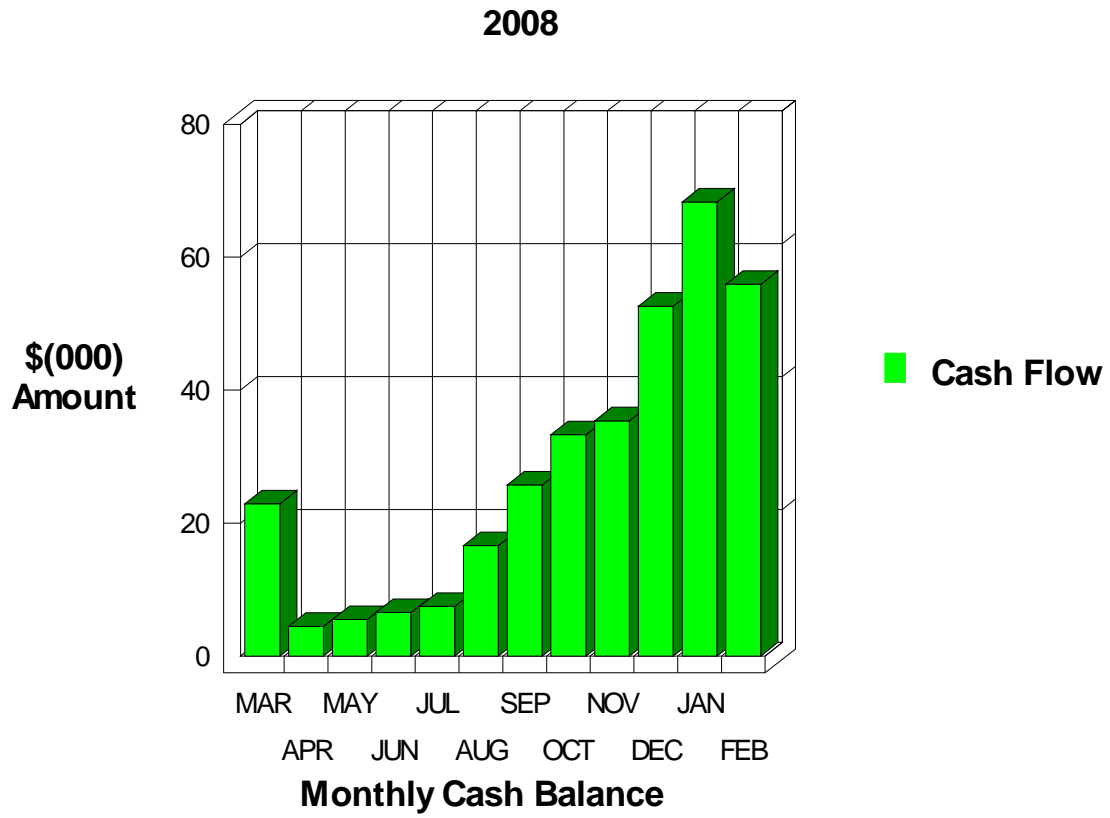
Three Year Profit & Loss Chart



**Table 5.5 Year One Cash Flow**

	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	TOTAL
<b>Source of Funds</b>													
Beginning cash	4,500	22,863	4,464	5,495	6,526	7,461	16,602	25,742	33,312	35,397	52,648	68,327	4,500
Sales/Svcs	112	8,197	10,880	10,880	11,029	21,760	21,760	21,909	32,640	32,640	32,789	43,520	248,116
Income													
Loans	37,500	0	0	0	0	0	0	0	0	0	0	0	37,500
<b>Available Cash</b>	\$42,112	\$31,060	\$15,344	\$16,375	\$17,555	\$29,221	\$38,362	\$47,651	\$65,952	\$68,037	\$85,437	\$111,847	\$290,116
<b>Use of Funds</b>													
Operating expenses	354	25,607	8,860	8,860	8,895	11,420	11,420	11,666	29,145	13,980	14,226	31,705	176,139
Inventory	1401	210	210	210	421	421	421	1896	631	631	2105	842	9,399
Loan payments	778	778	778	778	778	778	778	778	778	778	778	778	9,341
Tax Payments			0			0			0			22,616	22,616
<b>Total Cash Out</b>	\$19,249	\$26,596	\$9,849	\$9,849	\$10,094	\$12,619	\$12,619	\$14,339	\$30,555	\$15,390	\$17,110	\$55,942	\$234,211
<b>Net Cash Flow</b>	<b>\$22,863</b>	<b>\$4,464</b>	<b>\$5,495</b>	<b>\$6,526</b>	<b>\$7,461</b>	<b>\$16,602</b>	<b>\$25,742</b>	<b>\$33,312</b>	<b>\$35,397</b>	<b>\$52,648</b>	<b>\$68,327</b>	<b>\$55,905</b>	<b>\$55,905</b>

**Figure 5.4 One Year Cash Flow**

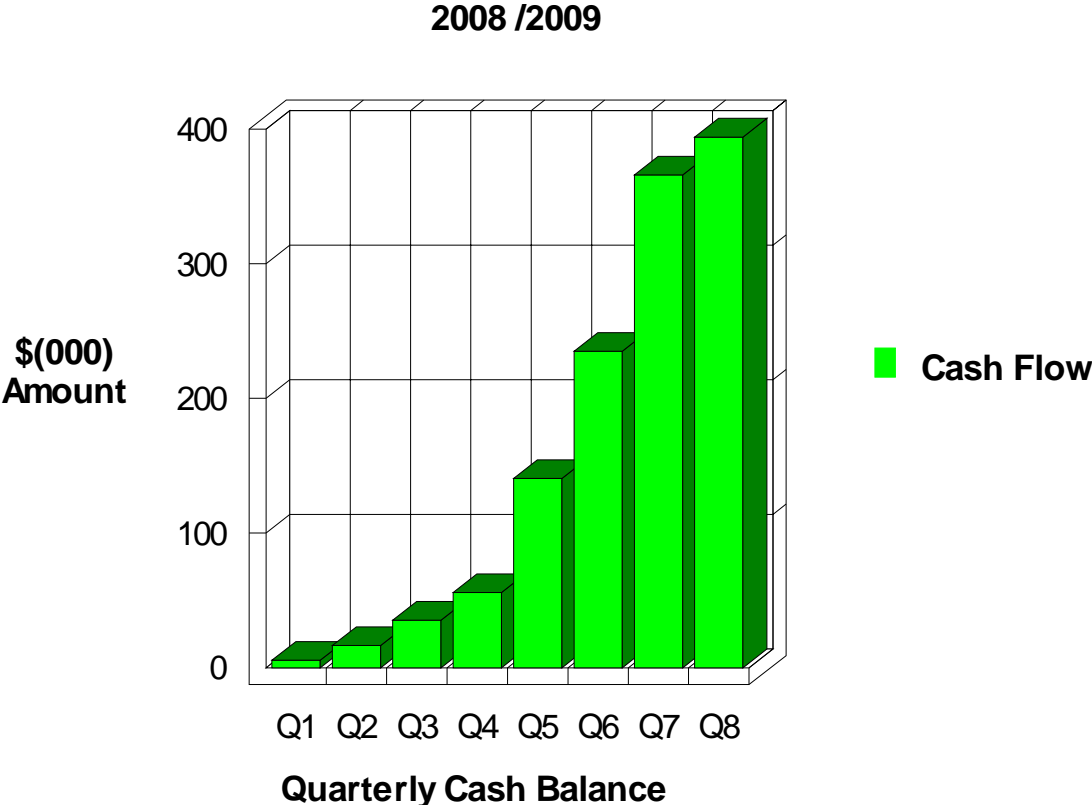


**Table 5.6 Year Two Cash Flow**

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Totals</b>
<b>Source of Funds</b>					
Beginning cash	55,905	140,479	235,073	365,877	55,905
Sales/Svcs Income	159,772	196,135	236,192	285,282	877,382
<b>Available Cash</b>	<b>\$215,677</b>	<b>\$336,615</b>	<b>\$471,265</b>	<b>\$651,160</b>	<b>\$933,287</b>
<b>Use of Funds</b>					
Operating Expenses	68,253	92,718	96,965	113,693	371,630
Inventory	4609	6488	6088	8332	25517
Loan payments	2,335	2,335	2,335	2,335	9,341
<b>Total Cash Out</b>	<b>\$75,198</b>	<b>\$101,541</b>	<b>\$105,388</b>	<b>\$257,026</b>	<b>\$539,152</b>
<b>Net Cash Flow</b>	<b>\$140,479</b>	<b>\$235,073</b>	<b>\$365,877</b>	<b>\$394,134</b>	<b>\$394,134</b>



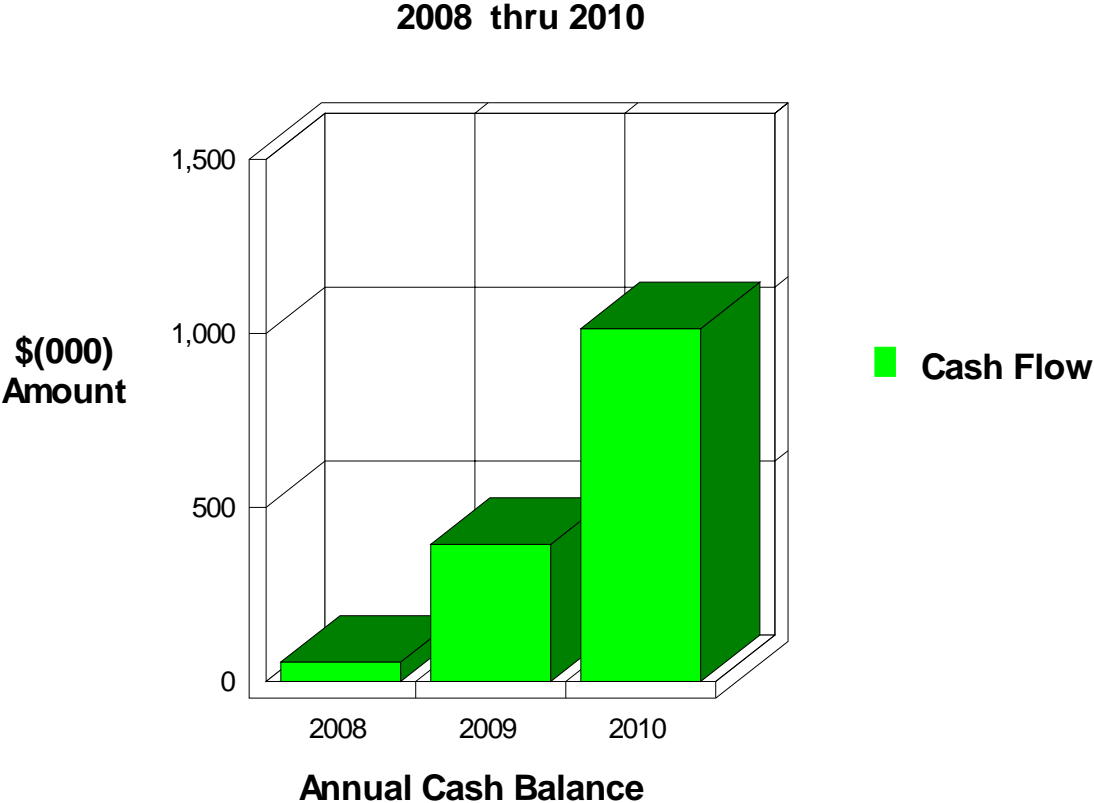
**Figure 5.5 Two Year Cash Flow**



**Table 5.7 Multi-Year Cash Flow**

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Source of Funds</b>			
Beginning cash	4,500	55,905	394,134
Sales/Svcs Income	248,116	877,382	1,438,639
Loans	37,500	0	0
<b>Available Cash</b>	<b>\$290,116</b>	<b>\$933,287</b>	<b>\$1,832,774</b>
<b>Use of Funds</b>			
Other oper. expenses	176,139	371,630	545,938
Inventory	9398.794521	25516.109589	38275.561644
Loan payments	9,341	9,341	9,341
Tax Payments	22,616	132,665	225,349
<b>Total Cash Out</b>	<b>\$234,211</b>	<b>\$539,152</b>	<b>\$818,903</b>
<b>Net Cash Flow</b>	<b>\$55,905</b>	<b>\$394,134</b>	<b>\$1,013,870</b>

**Figure 5.6 Multi-Year Cash Flow**



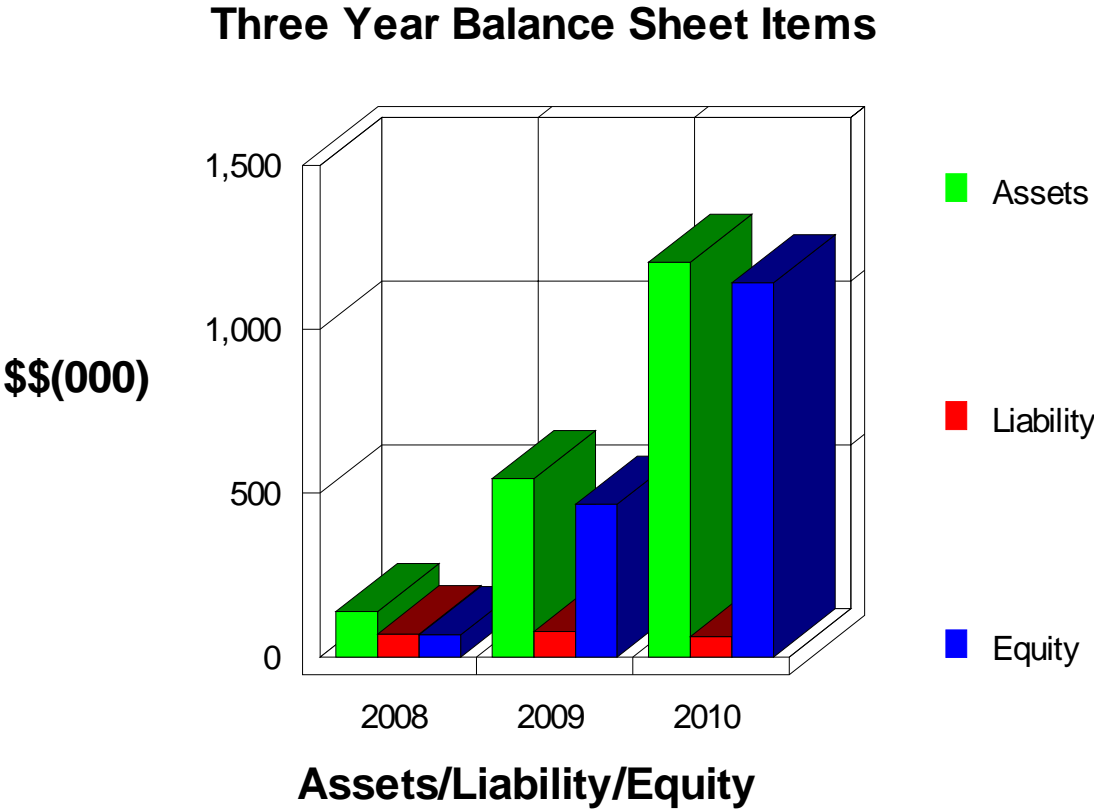
**Table 5.8 Income Statement Comparison**

<b>Revenue:</b>	100%	100%	100%	100%
<b>Cost of Goods Sold</b>	69%	39%	33%	32%
<b>Gross Margin</b>	31%	61%	67%	68%
<b>After Tax Income</b>	1%	23%	43%	46%

**Table 5.9 Balance Sheet**

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Current Assets:</b>			
Cash	55,905	394,134	1,013,870
Accounts Receivable	42,924	99,389	119,933
Inventories	9,399	25,516	38,276
<b>Total Current Assets</b>	<b>\$108,228</b>	<b>\$519,040</b>	<b>\$1,172,079</b>
<b>Fixed Assets:</b>			
Buildings & Equipment	35,000	35,000	35,000
Less Accum Deprec.	-5,000	-10,000	-15,000
<b>Total Fixed Assets</b>	<b>\$30,000</b>	<b>\$25,000</b>	<b>\$20,000</b>
<b>Total Assets</b>	<b>\$138,228</b>	<b>\$544,040</b>	<b>\$1,204,210</b>
<b>Current Liabilities:</b>			
Accounts Payable	16,313	40,330	45,278
Short Term Loans	6,802	7,440	8,138
Other short term liabilities	22,784	13,385	0
<b>Total Current Liabilities</b>	<b>\$45,899</b>	<b>\$61,155</b>	<b>\$53,416</b>
Long-term Liabilities	24,479	17,039	8,901
<b>Total Liabilities</b>	<b>\$70,379</b>	<b>\$78,194</b>	<b>\$62,318</b>
Retained Earnings	67,849	465,845	1,141,892
<b>Total Stockholder's Equity</b>	<b>\$67,849</b>	<b>\$465,845</b>	<b>\$1,141,892</b>
<b>Liabilities + Equity</b>	<b>\$138,228</b>	<b>\$544,040</b>	<b>\$1,204,210</b>
<b>ROA</b>	<b>50%</b>	<b>73%</b>	<b>56%</b>
<b>ROE</b>	<b>100%</b>	<b>85%</b>	<b>59%</b>

Figure 5.7 Balance Sheet Items



**Table 5.10 Balance Sheet Comparison**

	Ind. Avg.	2008	2009	2010
<b>Current Assets:</b>				
Cash	5%	40%	72%	84%
Accounts Receivable	34%	31%	18%	10%
Inventories	19%	7%	5%	3%
<b>Total Current Assets</b>	62%	78%	95%	97%
<b>Fixed Assets:</b>	31%	22%	5%	2%
<b>Total Assets</b>	100%	100%	100%	100%
<b>Current Liabilities:</b>				
Accounts Payable	33%	23%	52%	73%
<b>Total Current Liabilities</b>	65%	65%	78%	86%
Long-term Liabilities	35%	35%	22%	14%
<b>Total Liabilities</b>	100%	100%	100%	100%
<b>Total Stockholder's Equity</b>	40%	49%	86%	95%
<b>Liabilities + Equity</b>	100%	100%	100%	100%

## CHAPTER VI: FINANCIAL ADDENDA

### 6.1 Assumptions

Cost projections are based on constant price for raw materials, based on resin at \$0.25 per pound, PVOH at \$1.60 per pound, bags at \$0.65 per bag. Lease rate and other operating expenses are constant as shown in Table 5.2.

Sales are based on the selling price of \$0.85 per cubic foot of material. It is expected that demand will be strong thus allowing the firm to grow at a rapid pace. The first year projects steady growth as the business is built up. The second year projects continued growth as the firm continues to add new customers. The third year growth continues to see strong growth with sales beginning to level off in the fourth year.

Ideally the firm would like to have payment for goods upon receipt however the firm would be willing to accept terms of net 30 days on accounts receivables. Account payables would be paid on average of net 30 days as well.

Projected inventory turnover will vary with the demand due to the “Just in Time” concept.

The projected one time start-up costs are \$50,000.



## 6.2 Ratios

**Cash Ratio** - a measure of the amount of cash available to offset current debt ( $\text{Cash} / \text{Total Current Liabilities}$ ). A ratio below .5 may mean you are having cash flow problems, possibly because of a significant backlog in accounts receivable.

**Quick Ratio** - a measure of the amount of liquid assets available to offset current debt ( $\text{Cash} + \text{Accounts Receivable} / \text{Current Liabilities}$ ). A healthy enterprise will always keep this ratio at 1.0 or higher.

**Current Ratio** - a measure of the degree to which current assets cover current liabilities ( $\text{Current Assets} / \text{Current Liabilities}$ ). A high ratio indicates a good probability the enterprise can retire current debts. A ratio of 2.0 or higher is a comfortable financial position for most enterprises.

**Current Liabilities to Net Worth** - a measure of the extent to which the enterprise is using creditor funds versus their own investment to finance the business ( $\text{Current Liabilities} / \text{Liabilities} + \text{Equity}$ ). A ratio of .5 or higher may indicate inadequate owner investment or an extended accounts payable period. Care should be taken not to offend your vendors (creditors) to the extent it affects your ability to conduct day to day business.

**Total Liabilities to Net Worth** - a measure of the extent that the net worth of the enterprise can offset the liabilities ( $\text{Total Liabilities} / \text{Liabilities} + \text{Equity}$ ). A ratio

greater than 1.0 should be avoided; since it indicates the creditors have a greater stake in the business than the owners.

**Fixed Assets to Net Worth** - a measure of the extent of an enterprise's investment in non-liquid and often over valued fixed assets ( $\text{Fixed Assets} / \text{Liabilities} + \text{Equity}$ ). A ratio of .75 or higher is usually undesirable as it indicates possible over-investment and causes a large annual depreciation charge that will be deducted from the income statement.

**Fixed Assets to Total Assets** - a measure of the extent to which fixed assets are financed with owner's equity (capital) ( $\text{Fixed Assets} / \text{Total Assets}$ ). A high ratio, .5 or higher, indicates an inefficient use of working capital which reduces the enterprise's ability to carry accounts receivable and maintain inventory and usually means a low cash reserve. This will often limit your ability to respond to increased demand for your products or services.

### **6.3 Break Even Analysis**

As shown in Figure 10.1, Year One's break even analysis for the first few months illustrates that we would be operating at or near the break-even point however, the year ends with a small profit. This is attributed to the cost of raw materials prior to sales throughout the year.

Year Two as shown in Figure 10.2, illustrates that the firm will operate at a profit from quarter one through the remainder of the year. This is dependant upon the growth in sales of the product over year one.

Figure 10.3, Year Three, demonstrates that profits will rise well ahead of costs, therefore ending the year with substantial cash on hand.

#### **6.4 Sensitivity Analysis**

Sensitivity analysis is the analysis of the effect on project profitability of possible changes in sales, costs, and so on. (Brealey) Tables 10.2 – 10.4 illustrate the sensitivity analyses within the ranges of 5%-15% of cash flow.

#### **6.5 Payback Period**

The payback period refers to the period of time required for the return on an investment to "repay" the sum of the original investment. The payback period is considered a method of analysis with serious limitations and qualifications for its use, because it does not properly account for the time value of money, inflation, risk, financing or other important considerations

#### **6.6 Internal Rate of Return**

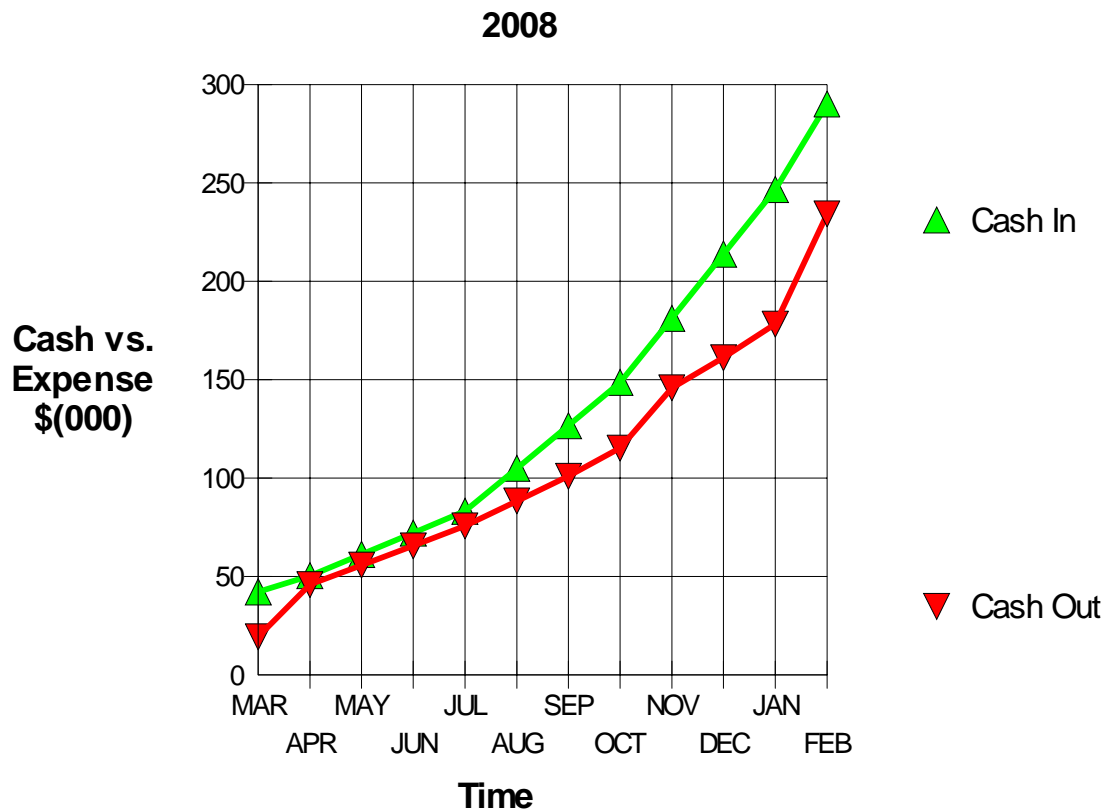
The internal rate of return is defined to be the discount rate that makes the net present value of those cash flows equal to zero. A simple decision-making criteria can be stated to accept a project if the Internal Rate of Return exceeds the cost of capital and rejected if this IRR is less than the cost of capital. Since the cost of capital for this project is 9%, the firm can accept this project.

#### **6.7 Net Present Value**

Net present Value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows. NPV analysis is sensitive to the reliability of future cash inflows that an investment or project will yield. It compares the value of a dollar today to the value of that

same dollar in the future, taking inflation and returns into account. If the NPV of a prospective project is positive, it should be accepted. However, if NPV is negative, the project should probably be rejected because cash flows will also be negative.

**Figure 6.1 One Year Break Even**



**Figure 6.2 Two Year Break Even**

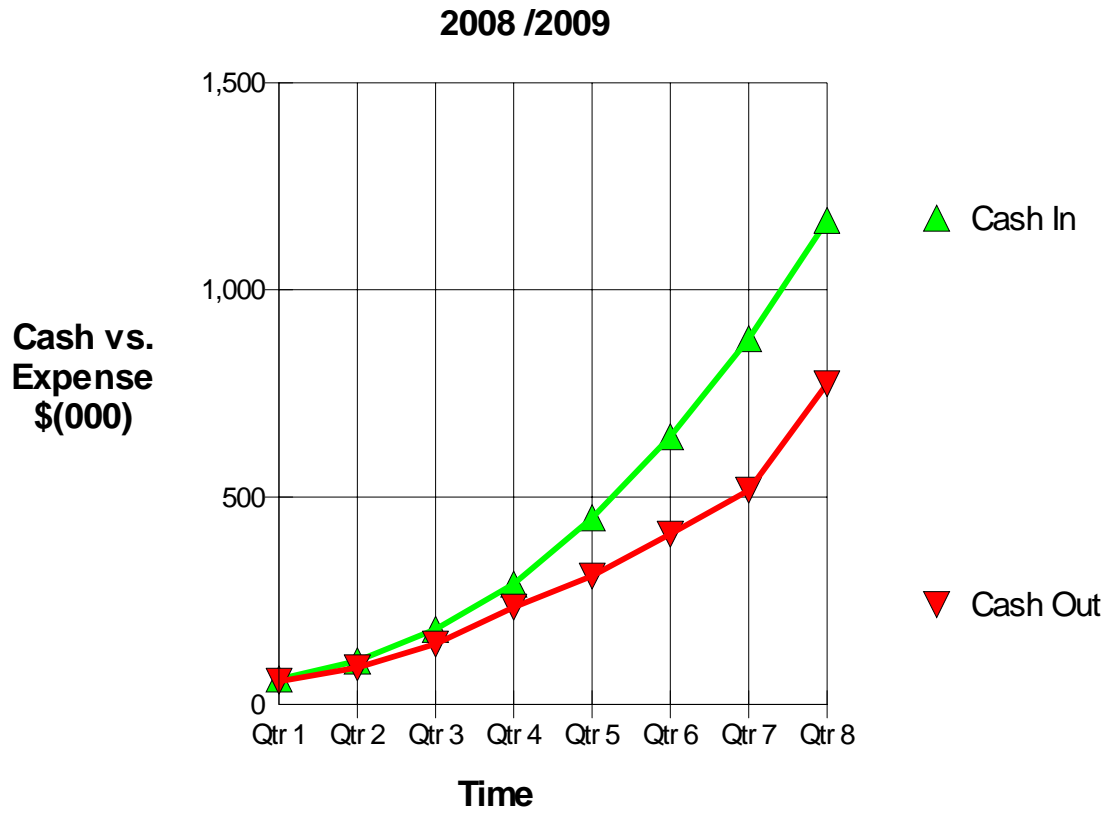
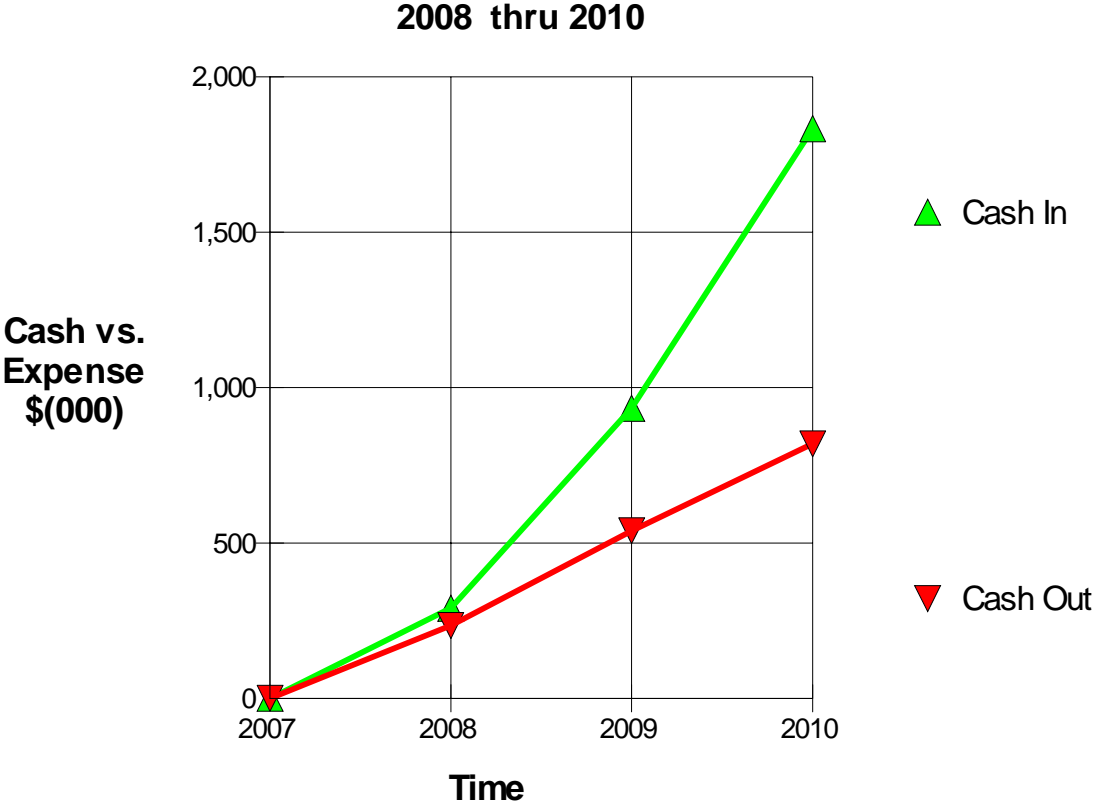


Figure 6.3 Multi-Year Break Even



**Table 6.1 Ratios**

	<b>Ind. Avg.</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Cash Ratio	0.14	1.22	6.44	18.98
Quick Ratio	0.99	2.15	8.07	21.23
Current Ratio	1.48	2.36	8.49	21.94
Current Liabilities to Net Worth	0.99	0.68	0.13	0.05
Total Liabilities to Net Worth	1.53	1.04	0.17	0.05
Fixed Assets to Net Worth	0.78	0.44	0.05	0.02
Fixed Assets to Total Assets	0.31	0.22	0.05	0.02

Industry is based on the category of Rubber and Miscellaneous Plastic Products subcategory Plastic Foam Products. This category was chosen since it was the closet category to Milex as well as the competition.

**Table 6.2 Sensitivity Analysis (5%)**

<b>(ASSUMES 5% CHANGE IN RECEIPTS AND DISBURSEMENTS)</b>			
	<b>Pessimistic</b>	<b>Expected</b>	<b>Optimistic</b>
	<b>Cash Flow</b>	<b>Cash Flow</b>	<b>Cash Flow</b>
Beginning Cash Balance	\$4,500	\$4,500	\$4,500
<b>Cash Inflows (Income):</b>			
Loan Proceeds	\$37,500	\$37,500	\$37,500
Sales & Receipts	\$235,710	\$248,116	\$260,522
Other:	\$0	\$0	\$0
<b>Total Cash Inflows</b>	<b>\$273,210</b>	<b>\$285,616</b>	<b>\$298,022</b>
Available Cash Balance	\$277,710	\$290,116	\$302,522
<b>Cash Outflows (Expenses):</b>			
Advertising	\$525	\$500	\$475
Credit Card Fees	\$6,253	\$5,955	\$5,657
Health Insurance	\$9,600	\$9,600	\$9,600
Insurance	\$1,800	\$1,800	\$1,800
Interest	\$3,123	\$3,123	\$3,123
Inventory Purchases	\$9,869	\$9,399	\$8,929
Licenses & Permits	\$210	\$200	\$190
Miscellaneous	\$3,150	\$3,000	\$2,850
Professional Fees	\$2,100	\$2,000	\$1,900
Rent or Lease	\$16,200	\$16,200	\$16,200
Repairs & Maintenance	\$1,260	\$1,200	\$1,140
Services	\$1,050	\$1,000	\$950
Supplies	\$1,575	\$1,500	\$1,425



Taxes	\$23,747	\$22,616	\$21,485
Utilities & Telephone	\$3,780	\$3,600	\$3,420
Vehicle	\$690	\$690	\$690
Other:	\$810	\$771	\$732
Subtotal	\$87,312	\$83,154	\$80,567
Other Cash Out Flows:	\$0	\$0	\$0
Decorating	\$2,100	\$2,000	\$1,900
Fixtures & Equipment	\$15,750	\$15,000	\$14,250
Lease Payments	\$48,000	\$48,000	\$48,000
Loan Principal	\$9,341	\$9,341	\$9,341
Owner's Draw	\$63,000	\$60,000	\$57,000
Other:	\$0	\$0	\$0
Subtotal	\$138,191	\$134,341	\$130,491
Total Cash Outflows	\$225,503	\$217,495	\$211,058
Ending Cash Balance	\$52,207	\$72,621	\$91,464

**Table 6.3 Sensitivity Analysis (10%)**

<b>SENSITIVITY ANALYSIS</b>			
<b>(ASSUMES 10% CHANGE IN RECEIPTS AND DISBURSEMENTS)</b>			
	<b>Pessimistic</b>	<b>Expected</b>	<b>Optimistic</b>
	<b>Cash Flow</b>	<b>Cash Flow</b>	<b>Cash Flow</b>
Beginning Cash Balance	\$4,500	\$4,500	\$4,500

Cash Inflows (Income):			
Loan Proceeds	\$37,500	\$37,500	\$37,500
Sales & Receipts	\$223,304	\$248,116	\$272,928
Other:	\$0	\$0	\$0
Total Cash Inflows	\$260,804	\$285,616	\$310,428
Available Cash Balance	\$265,304	\$290,116	\$314,928
Cash Outflows (Expenses):			
	\$0	\$0	\$0
Advertising	\$550	\$500	\$450
Credit Card Fees	\$6,551	\$5,955	\$5,360
Health Insurance	\$9,600	\$9,600	\$9,600
Insurance	\$1,800	\$1,800	\$1,800
Interest	\$3,123	\$3,123	\$3,123
Inventory Purchases	\$10,339	\$9,399	\$8,459
Licenses & Permits	\$220	\$200	\$180
Miscellaneous	\$3,300	\$3,000	\$2,700
Professional Fees	\$2,200	\$2,000	\$1,800
Rent or Lease	\$16,200	\$16,200	\$16,200
Repairs & Maintenance	\$1,320	\$1,200	\$1,080
Services	\$1,100	\$1,000	\$900
Supplies	\$1,650	\$1,500	\$1,350
Taxes	\$24,878	\$22,616	\$20,354
Utilities & Telephone	\$3,960	\$3,600	\$3,240
Vehicle	\$759	\$690	\$621
Other:	\$848	\$771	\$694
Subtotal	\$88,397	\$83,154	\$77,911
Other Cash Out Flows:	\$0	\$0	\$0

Decorating	\$2,200	\$2,000	\$1,800
Fixtures & Equipment	\$15,750	\$15,000	\$14,250
Lease Payments	\$48,000	\$48,000	\$48,000
Loan Principal	\$9,341	\$9,341	\$9,341
Owner's Draw	\$66,000	\$60,000	\$54,000
Other:	\$0	\$0	\$0
Subtotal	\$141,291	\$134,341	\$127,391
Total Cash Outflows	\$229,688	\$217,495	\$205,302
Ending Cash Balance	\$35,616	\$72,621	\$109,626

**Table 6.4 Sensitivity Analysis (15%)**

<b>SENSITIVITY ANALYSIS</b>			
<b>(ASSUMES 15% CHANGE IN RECEIPTS AND DISBURSEMENTS)</b>			
	<b>Pessimistic</b>	<b>Expected</b>	<b>Optimistic</b>
	<b>Cash Flow</b>	<b>Cash Flow</b>	<b>Cash Flow</b>
Beginning Cash Balance	\$4,500	\$4,500	\$4,500
Cash Inflows (Income):			
Loan Proceeds	\$37,500	\$37,500	\$37,500
Sales & Receipts	\$210,899	\$248,116	\$285,333
Other:	\$0	\$0	\$0
Total Cash Inflows	\$248,399	\$285,616	\$322,833
Available Cash Balance	\$252,899	\$290,116	\$327,333

Cash Outflows (Expenses):	\$0	\$0	\$0
Advertising	\$575	\$500	\$425
Credit Card Fees	\$6,848	\$5,955	\$5,062
Health Insurance	\$9,600	\$9,600	\$9,600
Insurance	\$1,800	\$1,800	\$1,800
Interest	\$3,123	\$3,123	\$3,123
Inventory Purchases	\$10,809	\$9,399	\$7,989
Licenses & Permits	\$230	\$200	\$170
Miscellaneous	\$3,450	\$3,000	\$2,550
Professional Fees	\$2,300	\$2,000	\$1,700
Rent or Lease	\$16,200	\$16,200	\$16,200
Repairs & Maintenance	\$1,380	\$1,200	\$1,020
Services	\$1,150	\$1,000	\$850
Supplies	\$1,725	\$1,500	\$1,275
Taxes	\$26,008	\$22,616	\$19,224
Utilities & Telephone	\$4,140	\$3,600	\$3,060
Vehicle	\$690	\$690	\$690
Other:	\$887	\$771	\$655
Subtotal	\$90,915	\$83,154	\$75,393
Other Cash Out Flows:	\$0	\$0	\$0
Decorating	\$2,300	\$2,000	\$1,700
Fixtures & Equipment	\$17,250	\$15,000	\$12,750
Lease Payments	\$48,000	\$48,000	\$48,000
Loan Principal	\$9,341	\$9,341	\$9,341
Owner's Draw	\$69,000	\$60,000	\$51,000
Other:	\$0	\$0	\$0

Subtotal	\$145,891	\$134,341	\$122,791
Total Cash Outflows	\$236,806	<u>\$217,495</u>	\$198,184
Ending Cash Balance	\$16,092	<u>\$72,621</u>	\$129,150

**Table 6.5 Payback Period**

<b>Sensitivity Analysis</b>	<b>Annual Sales</b>	<b>Payback Period - Number of years</b>
5%	91404	0.55
-5%	52207	0.96
10%	109626	0.46
-10%	35616	1.40
15%	129150	0.39
-15%	16092	3.11
0%	72621	0.69
<b>Loan Amount</b>	<b>50000</b>	

**Table 6.6 Internal Rate of Return**

	<b>Annual Income</b>	<b>IRR</b>
<b>Year 0</b>	<b>-50000</b>	<b>18%</b>
<b>Year 1</b>	<b>16092</b>	
<b>Year 2</b>	<b>16092</b>	
<b>Year 3</b>	<b>16092</b>	
<b>Year 4</b>	<b>16092</b>	
<b>Year 5</b>	<b>16092</b>	

**Table 6.7 Net Present Value**

<b>Year</b>		<b>Total</b>	<b>PV</b>	<b>Cost of Capital</b>
<b>0</b>	<b>-50000</b>		<b>\$50,000.00</b>	<b>9%</b>
<b>1</b>	<b>16092</b>	<b>(\$14,763.30)</b>	<b>(\$14,763.30)</b>	
<b>2</b>	<b>16092</b>	<b>(\$28,307.62)</b>	<b>(\$13,544.31)</b>	
<b>3</b>	<b>16092</b>	<b>(\$40,733.59)</b>	<b>(\$12,425.98)</b>	
<b>4</b>	<b>16092</b>	<b>(\$52,133.57)</b>	<b>(\$11,399.98)</b>	
<b>5</b>	<b>16092</b>	<b>(\$62,592.27)</b>	<b>(\$10,458.70)</b>	
<b>NPV</b>	<b>\$12,592</b>		<b>(\$12,592.27)</b>	

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<sup>i</sup> Weld County, Colorado was chosen due to no sales tax when compared to other neighboring counties (<https://www.taxview.state.co.us/querytaxrates.aspx?Selected=1>).