|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REVENUE |  |  |  |  |  |  |  |  |  |
| Sales | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
| Total Revenue | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
| EXPENSES |  |  |  |  |  |  |  |  |  |
| Labor | 1,100,000 | 1,155,000 | 1,212,750 | 1,273,388 | 1,337,057 | 1,403,910 | 1,474,105 | 1,547,810 | 1,625,201 |
| Materials | 1,100,000 | 1,155,000 | 1,212,750 | 1,273,388 | 1,337,057 | 1,403,910 | 1,474,105 | 1,547,810 | 1,625,201 |
| Repairs \& Maintenance | 536,000 | 562,800 | 590,940 | 620,487 | 651,511 | 684,087 | 718,291 | 754,206 | 791,916 |
| Utilities | 335,000 | 351,750 | 369,338 | 387,804 | 407,195 | 427,554 | 448,932 | 471,379 | 494,948 |
| Insurance | 65,000 | 68,900 | 73,034 | 77,416 | 82,061 | 86,985 | 92,204 | 97,736 | 103,600 |
| Sales | 550,000 | 577,500 | 606,375 | 636,694 | 668,528 | 701,955 | 737,053 | 773,905 | 812,601 |
| Total Expenses | 3,686,000 | 3,870,950 | 4,065,187 | 4,269,176 | 4,483,409 | 4,708,401 | 4,944,690 | 5,192,847 | 5,453,467 |
| Net Income | 1,814,000 | 1,904,050 | 1,998,563 | 2,097,762 | 2,201,875 | 2,311,149 | 2,425,836 | 2,546,205 | 2,672,539 |

## REVENUE

Sales

## Total Revenue

## EXPENSES

Labor
Materials
Repairs \& Maintenance
Utilities
Insurance
Sales
Total Expenses

Net Income

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CASH FLOW BEFORE TAX |  |  |  |  |  |  |  |  |  |
| Revenue | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
| Expenses | 3,686,000 | 3,870,950 | 4,065,187 | 4,269,176 | 4,483,409 | 4,708,401 | 4,944,690 | 5,192,847 | 5,453,467 |
| Net Income | 1,814,000 | 1,904,050 | 1,998,563 | 2,097,762 | 2,201,875 | 2,311,149 | 2,425,836 | 2,546,205 | 2,672,539 |
| Less: Principle Payments | 644,572 | 705,037 | 771,174 | 843,516 | 922,644 | 1,009,194 | 1,103,863 |  |  |
| Interest payments | 513,842 | 453,377 | 387,239 | 314,898 | 235,770 | 149,220 | 54,550 |  |  |
| Working Capital Additions | 90,000 | - | - | - | - | - | - |  | $(90,000)$ |
| CASH FLOW BEFORE TAX | 565,586 | 745,636 | 840,149 | 939,348 | 1,043,461 | 1,152,735 | 1,267,422 | 2,546,205 | 2,762,539 |
| Less: Income Tax at 35.00\% | $(94,945)$ | $(435,121)$ | $(109,506)$ | 142,953 | 344,530 | 413,068 | 486,343 | 719,368 | 935,388 |
| CASH FLOW AFTER TAX | 660,531 | 1,180,758 | 949,655 | 796,395 | 698,932 | 739,667 | 781,079 | 1,826,837 | 1,827,150 |
| INCOME TAX CALCULATIONS |  |  |  |  |  |  |  |  |  |
| Net Income | 1,814,000 | 1,904,050 | 1,998,563 | 2,097,762 | 2,201,875 | 2,311,149 | 2,425,836 | 2,546,205 | 2,672,539 |
| Less: Interest Payments | 513,842 | 453,377 | 387,239 | 314,898 | 235,770 | 149,220 | 54,550 | - |  |
| Depreciation \& Amortization | 1,571,429 | 2,693,877 | 1,924,198 | 1,374,427 | 981,734 | 981,734 | 981,734 | 490,867 | - |
| Taxable Income | $(271,271)$ | (1,243,204) | $(312,874)$ | 408,437 | 984,371 | 1,180,195 | 1,389,552 | 2,055,338 | 2,672,539 |
| Income Tax at 35.00\% | $(94,945)$ | $(435,121)$ | $(109,506)$ | 142,953 | 344,530 | 413,068 | 486,343 | 719,368 | 935,388 |


|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Working Capital |  |  |  |  |  |  |  |  |  |
| Balance. Beginning of Year | - | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 |
| Additions to Working Capital | 90,000 | - | - | - | - | - | - | - | $(90,000)$ |
| Balance. End of Year | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | - |
| Working Capital Summary |  |  |  |  |  |  |  |  |  |
| Balance. Beginning of Year | - | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 |
| Additions to Working Capital | 90,000 | - | - | - | - | - | - | - | $(90,000)$ |
| Balance. End of Year | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | - |

Working Capital Yearly
Plastic Bottle Maufacturing Division
Replace Equipment Analysis

Replace Example with Revenue \& Expenses

|  |  |  |  | Working | apital |  | Finan |  |  | perating <br> sh Flow | Sale Proceeds |  | Net ash Flow |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  | Investment |  | itions | Reductions |  | Borrow | Paid Back |  | fore Tax) | (Before Tax) |  | efore Tax) |
| Year 1 Jan-Year 1 Dec | \$ | $(11,578,479)$ | \$ | $(90,000)$ | - | \$ | 6,000,000 | - | \$ | 565,586 |  | \$ | $(5,102,893)$ |
| Year 2 Jan-Year 2 Dec |  | - |  |  | - |  | - | - |  | 745,636 | - |  | 745,636 |
| Year 3 Jan-Year 3 Dec |  | - |  | - | - |  | - | - |  | 840,149 | - |  | 840,149 |
| Year 4 Jan-Year 4 Dec |  | - |  | - | - |  | - | - |  | 939,348 | - |  | 939,348 |
| Year 5 Jan-Year 5 Dec |  | - |  | - | - |  | - | - |  | 1,043,461 | - |  | 1,043,461 |
| Year 6 Jan-Year 6 Dec |  | - |  | - | - |  | - | - |  | 1,152,735 | - |  | 1,152,735 |
| Year 7 Jan-Year 7 Dec |  | - |  | - | - |  | - | - |  | 1,267,422 | - |  | 1,267,422 |
| Year 8 Jan-Year 8 Dec |  | - |  | - | - |  | - | - |  | 2,546,205 | - |  | 2,546,205 |
| Year 9 Jan-Year 9 Dec |  | - |  | - | 90,000 |  | - | - |  | 2,762,539 | 1,000,000 |  | 3,852,539 |
|  |  |  |  |  |  |  |  |  |  |  | Total | \$ | 7,284,604 |

## Note

The first year investment has been reduced by the Salvage Value of $\$ 800,000$ before tax and increased by the \$ 1,378,479 Loan Repayment.

| Financial Returns (Before Tax) |  |
| :--- | :--- |
| Internal Rate of Return (IRR) | $14.62 \%$ |
| Net Present Value (NPV) at 13.00\% | $\$ 473,360$ |
| Modified Internal Rate of Return (MIRR) | $10.39 \%$ |
| Short Term Financing Rate (Before Tax) | $8.000 \%$ |
| Short Term Reinvestment Rate (Before Tax) | $2.500 \%$ |
| Annual Equivalency at 13.00\% | $\$ 92,243$ |
| Benefit to Cost Ratio at 13.00\% | 0.97 |
| Payback Period | 6.30 years. |
| Discounted Payback Period at 13.00\% | 8.63 years. |



## Note

The first year investment has been reduced by the Salvage Value of \$740,000 after tax and increased by the \$ 1,378,479 Loan Repayment.

| Financial Returns (After Tax) |  |
| :--- | :--- |
| Internal Rate of Return (IRR) | $11.10 \%$ |
| Net Present Value (NPV) at 8.45\% | $\$ 759,691$ |
| Modified Internal Rate of Return (MIRR) | $7.23 \%$ |
| Short Term Financing Rate (After Tax) | $5.200 \%$ |
| Short Term Reinvestment Rate (After Tax) | $1.625 \%$ |
| Annual Equivalency at 8.45\% | $\$ 123,897$ |
| Payback Period | 6.90 years. |
| Discounted Payback Period at 8.45\% | 8.39 years. |

## Cash Flow on Disposition (Before Tax)

| Salvage Value |  |  |
| :--- | ---: | ---: |
| Less: | Selling Expenses |  |
|  |  |  |
| Legal Fees |  |  |
|  | Removal Costs | $\$$ |
| Cash Flow on Disposition (Before Tax) | 1,000,000 |  |

## Cash Flow on Disposition (After Tax)

Net Salvage Value 1,000,000
Less: Capital Gains Tax
Net Salvage Value 1,000,000
Less Cost Basis
$\frac{11,000,000}{-x} 35.00 \%$
Less: Recaptured Depreciation Tax
Tax Value of Investments on Sale 1,000,000
Less Adjusted Basis
Recaptured Depreciation $1,000,000 \times 35.00 \%$
350,000
Cash Flow on Disposition (After Tax) $\quad \begin{gathered}\mathbf{6 5 0 , 0 0 0}\end{gathered}$

|  |  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| REVENUE <br> Sales |  |  |  |  |  |  |  |  |  |  |
|  | Total | $\mathbf{5 , 5 0 0 , 0 0 0}$ | $5,775,000$ | $6,063,750$ | $6,366,938$ | $6,685,284$ | $7,019,549$ | $7,370,526$ | $7,739,052$ | $8,126,005$ |
|  |  |  | $\mathbf{5 , 7 7 5 , 0 0 0}$ | $\mathbf{6 , 0 6 3 , 7 5 0}$ | $\mathbf{6 , 3 6 6 , 9 3 8}$ | $\mathbf{6 , 6 8 5 , 2 8 4}$ | $\mathbf{7 , 0 1 9 , 5 4 9}$ | $\mathbf{7 , 3 7 0 , 5 2 6}$ | $\mathbf{7 , 7 3 9 , 0 5 2}$ | $\mathbf{8 , 1 2 6 , 0 0 5}$ |

September 29, 2009
Investit Decisions

|  |  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Labor |  |  |  |  |  |  |  |  |  |  |
| Sales |  | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
|  | Total | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
| Percentage |  | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% |
| Labor |  | 1,100,000 | 1,155,000 | 1,212,750 | 1,273,388 | 1,337,057 | 1,403,910 | 1,474,105 | 1,547,810 | 1,625,201 |
| Materials |  |  |  |  |  |  |  |  |  |  |
| Sales |  | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
|  | Total | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
| Percentage |  | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% | 20.00\% |
| Materials |  | 1,100,000 | 1,155,000 | 1,212,750 | 1,273,388 | 1,337,057 | 1,403,910 | 1,474,105 | 1,547,810 | 1,625,201 |
| Repairs \& Maintenance |  | 536,000 | 562,800 | 590,940 | 620,487 | 651,511 | 684,087 | 718,291 | 754,206 | 791,916 |
| Utilities |  | 335,000 | 351,750 | 369,338 | 387,804 | 407,195 | 427,554 | 448,932 | 471,379 | 494,948 |
| Insurance |  | 65,000 | 68,900 | 73,034 | 77,416 | 82,061 | 86,985 | 92,204 | 97,736 | 103,600 |
| Sales |  |  |  |  |  |  |  |  |  |  |
| Sales |  | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
|  | Total | 5,500,000 | 5,775,000 | 6,063,750 | 6,366,938 | 6,685,284 | 7,019,549 | 7,370,526 | 7,739,052 | 8,126,005 |
| Percentage |  | 10.00\% | 10.00\% | 10.00\% | 10.00\% | 10.00\% | 10.00\% | 10.00\% | 10.00\% | 10.00\% |
| Sales |  | 550,000 | 577,500 | 606,375 | 636,694 | 668,528 | 701,955 | 737,053 | 773,905 | 812,601 |
|  | Total | 3,686,000 | 3,870,950 | 4,065,187 | 4,269,176 | 4,483,409 | 4,708,401 | 4,944,690 | 5,192,847 | 5,453,467 |

Input Data Summary
Plastic Bottle Maufacturing Division
Replace Equipment Analysis

## Decision Replace

Note: For information on Revenue, Expenses and Working Capital inputs and projections see the Revenue, Expense and projections description reports and the Working Capital report.

| Project Information <br> Analysis Period <br> Starting date | 9 years <br> January Ye |
| :--- | :---: |
|  |  |
| Investor Information |  |
| Marginal Tax Rate | $35.00 \%$ |
| Capital Gain Tax Rate | $35.00 \%$ |
| Recaptured Deprec. Tax Rate | $35.00 \%$ |
|  |  |
| Desired Return on Investment (Discount Rate) |  |
| Before Tax: | $13.00 \%$ |
| After Tax: | $8.45 \%$ |
| Short Term Reinvestment Rates |  |
| $\quad$ Before Tax: | $2.500 \%$ |
| After Tax: | $1.625 \%$ |
| Short Term Financing Rates |  |
| $\quad$ Before Tax: | $8.000 \%$ |
| After Tax: | $5.200 \%$ |

## Investment information

| Salvage Value (Before Tax) | $\$ 800,000$ |
| :--- | :--- |
| Salvage Value (After Tax) | $\$ 740,000$ |
| Financing Repaid | $\$ 1,378,479$ |

Total Invested in Year 1 is \$11,000,000

|  |  |  |  | Recovery Period |
| :---: | :---: | :---: | :---: | :---: |
|  | Investment Type | Date | Amount | Years |
| New Equipment | Personal Property. 200\% Declining Bal. | Jan, Year 1 | \$ 11,000,000 | 7.00 |

## Financing

Equipment Loan

| Starts: | January Year 1 |  |
| :---: | :---: | :---: |
| Type: | Standard Mortgage |  |
| Amount: | \$ 6,000,000 |  |
| Interest Rate: | Fixed |  |
| Payment Frequency: | Monthly |  |
| Compounding Frequency: | Monthly |  |
| Addit. Payments/Borrowing: | No |  |
| Rounding | Up to Nearest Cent |  |
| No of Terms: | 1 |  |
|  | Nominal Annual |  |
| Term Time Period | Interest Rate | Amortization |
| $1 \quad 7 \mathrm{yrs} \& 0 \mathrm{mos}$ | 9.000\% | $7 \mathrm{yrs} \& 0 \mathrm{mos}$ |

## SALVAGE VALUE

Disposition Costs
Selling Expenses
Legal Fees
Removal Costs

New Equipment

0\% of the Salvage Value
$0 \%$ of the Salvage Value
-

| Capital <br> Investment | Salvage <br> Value | \% of Capital <br> Investment |
| :--- | :--- | :--- |
| $\$ 11,000,000$ | $\$ 1,000,000$ | $9.09 \%$ |

## EXPENSES PROJECTIONS

## Labor

Entry Choice: \% of Revenue(s)
Sales

| Year 1 | 20.00\% of Revenue(s) |
| :--- | :--- |
| Constant per year for next 8 years |  |

## Materials

Entry Choice: \% of Revenue(s)
Sales

| Year 1 | 20.00\% of Revenue(s) |
| :--- | :--- |
|  | Constant per year for next 8 years |


| Repairs \& Maintenance |  |
| :---: | :---: |
| Entry Choice: \$ per Year |  |
| Year 1 | \$536,000 per Year |
|  | Compounding at 5.00\% per year for next 8 years |
| Utilities |  |
| Entry Choice: \$ per Year |  |
| Year 1 | \$335,000 per Year |
|  | Compounding at 5.00\% per year for next 8 years |
| Insurance |  |
| Entry Choice: \$ per Year |  |
| Year 1 | \$65,000 per Year |
|  | Compounding at 6.00\% per year for next 8 years |

Sales
Entry Choice: \% of Revenue(s)
Sales
Year $1 \quad 10.00 \%$ of Revenue(s)
Constant per year for next 8 years

## REVENUE PROJECTIONS

Sales

| Entry Choice: $\$$ per Year |
| :--- |
| Year 1 |$\quad \$ 5,500,000$ per Year

## New Equipment

| Starting Date: | Year 1 January |
| :--- | :--- |
| Depreciation Method: | Personal Property. 200\% Declining Bal. |
| Recovery Period: | 7.0 Year(s) |
| First Year Convention: Half-Year | $50.0 \%$ |
| Last Year Convention: | $50.0 \%$ |
| Amount | $\$ 11,000,000$ |


| Period | Cost <br> Basis |  | Adjusted Cost Basis |  | Depreciation |  | Undepreciated Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yr. 1 Jan-Yr. 1 Dec |  | 11,000,000 | \$ | 11,000,000 | \$ | 1,571,429 | \$ | 9,428,571 |
| Yr. 2 Jan-Yr. 2 Dec |  |  |  | 9,428,571 |  | 2,693,877 |  | 6,734,694 |
| Yr. 3 Jan-Yr. 3 Dec |  |  |  | 6,734,694 |  | 1,924,198 |  | 4,810,496 |
| Yr. 4 Jan-Yr. 4 Dec |  |  |  | 4,810,496 |  | 1,374,427 |  | 3,436,069 |
| Yr. 5 Jan-Yr. 5 Dec |  |  |  | 3,436,069 |  | 981,734 |  | 2,454,335 |
| Yr. 6 Jan-Yr. 6 Dec |  |  |  | 2,454,335 |  | 981,734 |  | 1,472,601 |
| Yr. 7 Jan-Yr. 7 Dec |  |  |  | 1,472,601 |  | 981,734 |  | 490,867 |
| Yr. 8 Jan-Yr. 8 Dec |  |  |  | 490,867 |  | 490,867 |  | - |
|  |  | 11,000,000 |  |  | \$ | 1,000,000 |  |  |

Mortgage Schedule
September 29, 2009
Plastic Bottle Maufacturing Division
Replace Equipment Analysis

| Equipment Loan |  |
| :--- | :--- |
| Amount: | $\$ 6,000,000$ |
| Type: | Standard Mortgage |
| Analysis Start Date: | January Year 1 |
| Mortgage Commences: | January Year 1 |
| Payment Frequency: | Monthly |
| Payment Rounded: | Up to Nearest Cent |
| Compounding Frequency: | Monthly |
| Interest Rate: | Fixed |
| Additional Payment or Borrowing: | No |


| Term | Start Date of | Time Period |  | Nominal Annual |  | Amortization |  |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: | :---: |
|  | (Balloon) Term | Years | Months | Interest Rate | Years | Months |  |
| 1 | Year 1 Jan | 7 | 0 | $9.000 \%$ | 7 | 0 |  |

Payout at end of Analysis Period: Dec Year 9
Payout at end of last Term: Dec Year 7

| Outstanding | End of Year <br> Balance | Mortgage <br> Accrued Interest |
| ---: | ---: | ---: |


|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Time Period | Payment | Interest <br> Payment | Principal <br> Payment | Additional <br> Payment or <br> (Borrowing) | Outstanding <br> Balance |
| Year 1 Jan-Year 1 Dec | $1,158,413.64$ | $513,841.81$ | $644,571.83$ | - | $5,355,428.17$ |
| Year 2 Jan-Year 2 Dec | $1,158,413.64$ | $453,376.53$ | $705,037.11$ | - | $4,650,391.06$ |
| Year 3 Jan-Year 3 Dec | $1,158,413.64$ | $387,239.17$ | $771,174.47$ | - | $3,879,216.59$ |
| Year 4 Jan-Year 4 Dec | $1,158,413.64$ | $314,897.70$ | $843,515.94$ | - | $3,035,700.65$ |
| Year 5 Jan-Year 5 Dec | $1,158,413.64$ | $235,770.07$ | $922,643.57$ | - | $2,113,057.08$ |
| Year 6 Jan-Year 6 Dec | $1,158,413.64$ | $149,219.73$ | $1,009,193.91$ | - | $1,103,863.17$ |
| Year 7 Jan-Year 7 Dec | $\mathbf{1 , 1 5 8 , 4 1 3 . 5 8}$ | $54,550.41$ | $\mathbf{1 , 1 0 3 , 8 6 3 . 1 7}$ | - |  |
|  | $\mathbf{8 , 1 0 8 , 8 9 5 . 4 2}$ | $\mathbf{2 , 1 0 8 , 8 9 5 . 4 2}$ | $\mathbf{6 , 0 0 0 , 0 0 0 . 0 0}$ | - | - |

