

## NEPA Economic Impact Modeling Scenario

### Project Background:

Bubbles Soda Company, a manufacturer of soft drinks, desires to construct a facility in Monroe County. This 100,000 SF facility will be constructed in 2014 at a total building cost of \$12,314,000 and a cost for road and parking lot construction of \$2,600,000. Included in the building construction costs are architectural and engineering fees of \$564,000. This impact will be estimated at the state level because some of the construction materials are not available within Monroe County.

The facility will open for operation in January 2015 and will have 50 employees with a total payroll (salary and fringe benefits) of \$2,500,000. Total sales anticipated during the first year of operation will be \$35,000,000. We will assume the impacts will all occur in Monroe County.

During 2015, there will be people coming from the corporate headquarters in Myrtle Beach, South Carolina to visit the facility. These visitors will spend 100 nights in Monroe County during the year. For each night, they will spend \$100 on lodging, \$50 on restaurant meals, \$40 in gasoline, \$5 in snack foods and \$25 in other items such as souvenirs. We will assume the impacts will all occur in Monroe County.

What is the total impact of the project and operation? IMPLAN®, an economic impact modeling system that is available from IMPLAN Group, LLC of Huntersville, North Carolina, can be used to estimate the impact from construction on the Pennsylvania economy in 2014 and the impact from operation and visitation on the Monroe County economy during 2015.

The following report provides a sample product from using NEPA's Economic Impact Modeling Services.

### Introduction

**The impacts indicated in this report are estimates and the actual numbers can be higher or lower than estimated.**

To clarify the results of the impact model, the definitions of direct impacts, indirect impacts, induced impacts, total value added, labor income and output are presented here. **Direct impacts** consist of permanent jobs, wages and output of the project company itself, construction or tourism. **Indirect impacts** are the jobs, wages and output created by businesses, which provide goods and services essential to the construction of the project or to the operation of the company. They are also referred to as "supplier" impacts. These businesses range from manufacturers (who make goods) to wholesalers (who deliver goods) to janitorial firms that clean buildings. **Induced impacts** are spending of wages and salaries by the direct and indirect employees on items such as food, housing, transportation and medical services. This spending creates induced employment in various sectors of the economy. Induced impacts are also commonly referred to as "consumer" impacts. The **total impact** is the sum of the **direct, indirect and induced impacts**. **Labor Income** is the sum of **Employee Compensation** and **Proprietor Income**. **Total Value Added** is the sum of **Labor Income**, **Other Property Type Income** and **Taxes on Production and Imports**. Finally, **Output**, also referred to as sales or economic activity, relates to the gross receipts for goods and services generated by the company's operations.

## Results

### *Construction during 2014*

Based on cost information provided by Bubbles Soda Company, Tables 1 and 2 provide the estimated impact on the Pennsylvania economy from construction during 2014.

**Table 1. Estimated Impact on the Pennsylvania Economy from Construction during 2014 (2014 Dollars)**

	Direct	+Indirect	+Induced	=Total
Employee Compensation	\$3,586,040	\$1,485,253	\$1,853,112	\$6,924,405
+Proprietor Income	\$1,293,774	\$317,525	\$264,631	\$1,875,930
=Labor Income	\$4,879,814	\$1,802,778	\$2,117,743	\$8,800,335
Labor Income	\$4,879,814	\$1,802,778	\$2,117,743	\$8,800,335
+Other Property Type Income	\$762,256	\$701,441	\$1,280,664	\$2,744,361
+Tax on Production and Imports	\$54,288	\$194,190	\$381,353	\$629,831
=Total Value Added	\$5,696,358	\$2,698,409	\$3,779,760	\$12,174,527
Output	\$14,757,577	\$5,319,130	\$6,561,781	\$26,638,488
Employment	75.6	25.8	44.1	145.5

Source: IMPLAN<sup>®</sup>

**Table 2. Estimated Tax Impact from Construction during 2014 (2014 Dollars)**

	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations	Total
Federal Tax Impact	Social Ins Tax – Employee Contribution	\$418,146	\$120,689			\$538,835
	Social Ins Tax – Employer Contribution	\$422,872				\$422,872
	Tax on Production and Imports: Excise Taxes			\$34,312		\$34,312
	Tax on Production and Imports: Custom Duty			\$15,979		\$15,979
	Tax on Production and Imports: Fed Non-Taxes			\$26,377		\$26,377
	Corporate Profits Tax					\$132,034
	Personal Tax: Income Tax				\$581,188	\$581,188
Total Federal Tax	\$841,018	\$120,689	\$76,668	\$581,188	\$132,034	\$1,751,597
State and Local Tax Impact	Dividends				\$48,671	\$48,671
	Social Ins Tax – Employee Contribution	\$2,729	\$0			\$2,729
	Social Ins Tax – Employer Contribution	\$11,742				\$11,742
	Tax on Production and Imports: Sales Tax			\$225,352		\$225,352
	Tax on Production and Imports: Property Tax			\$237,720		\$237,720
	Tax on Production and Imports: Motor Vehicle License			\$4,945		\$4,945
	Tax on Production and Imports: Severance Tax			\$0		\$0
	Tax on Production and Imports: Other Taxes			\$69,541		\$69,541
	Tax on Production and Imports: S/L Non-Taxes			\$15,605		\$15,605
	Corporate Profits Tax					\$32,508
	Personal Tax: Income Tax				\$182,481	\$182,481
	Personal Tax: Non-Taxes (Fines – Fees)				\$26,675	\$26,675
	Personal Tax: Motor Vehicle License				\$8,716	\$8,716
	Personal Tax: Property Taxes				\$4,217	\$4,217
Personal Tax: Other Tax (Fish/Hunt)				\$4,113	\$4,113	
Total State and Local Tax	\$14,471	\$0	\$553,163	\$226,202	\$81,179	\$875,015
Grand Total	\$855,489	\$120,689	\$629,831	\$807,390	\$213,213	\$2,626,612

Source: IMPLAN<sup>®</sup>

*Operation during 2015*

Based on cost information provided by Bubbles Soda Company, Tables 3 and 4 provide the estimated impact on the Monroe County economy from operation during 2015.

**Table 3. Estimated Impact on the Monroe County Economy from Operation during 2015 (2015 Dollars)**

	Direct	+Indirect	+Induced	=Total
Employee Compensation	\$2,500,000	\$776,676	\$545,052	\$3,821,728
+Proprietor Income	\$476,479	\$132,546	\$67,169	\$676,194
=Labor Income	\$2,976,479	\$909,222	\$612,221	\$4,497,922
Labor Income	\$2,976,479	\$909,222	\$612,221	\$4,497,922
+Other Property Type Income	\$252,842	\$402,861	\$459,132	\$1,114,835
+Tax on Production and Imports	\$65,086	\$177,819	\$147,420	\$390,325
=Total Value Added	\$3,294,407	\$1,489,902	\$1,218,773	\$6,003,082
Output	\$35,000,000	\$2,855,854	\$1,967,137	\$39,822,991
Employment	50.0	17.6	16.0	83.6

Source: IMPLAN®

**Table 4. Estimated Tax Impact from Operation during 2015 (2015 Dollars)**

	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations	Total
Federal Tax Impact	Social Ins Tax – Employee Contribution	\$214,628	\$52,940			\$267,568
	Social Ins Tax – Employer Contribution	\$217,054				\$217,054
	Tax on Production and Imports: Excise Taxes			\$18,092		\$18,092
	Tax on Production and Imports: Custom Duty			\$8,426		\$8,426
	Tax on Production and Imports: Fed Non-Taxes			\$13,908		\$13,908
	Corporate Profits Tax				\$53,749	\$53,749
	Personal Tax: Income Tax				\$302,882	\$302,882
	<b>Total Federal Tax</b>	<b>\$431,682</b>	<b>\$52,940</b>	<b>\$40,426</b>	<b>\$302,882</b>	<b>\$53,749</b>
State and Local Tax Impact	Dividends				\$19,813	\$19,813
	Social Ins Tax – Employee Contribution	\$2,013	\$0			\$2,013
	Social Ins Tax – Employer Contribution	\$8,659				\$8,659
	Tax on Production and Imports: Sales Tax			\$142,544		\$142,544
	Tax on Production and Imports: Property Tax			\$150,368		\$150,368
	Tax on Production and Imports: Motor Vehicle License			\$3,128		\$3,128
	Tax on Production and Imports: Severance Tax			\$0		\$0
	Tax on Production and Imports: Other Taxes			\$43,988		\$43,988
	Tax on Production and Imports: S/L Non-Taxes			\$9,871		\$9,871
	Corporate Profits Tax				\$13,234	\$13,234
	Personal Tax: Income Tax				\$97,052	\$97,052
	Personal Tax: Non-Taxes (Fines – Fees)				\$13,769	\$13,769
	Personal Tax: Motor Vehicle License				\$4,421	\$4,421
	Personal Tax: Property Taxes				\$2,173	\$2,173
	Personal Tax: Other Tax (Fish/Hunt)				\$2,070	\$2,070
<b>Total State and Local Tax</b>	<b>\$10,672</b>	<b>\$0</b>	<b>\$349,899</b>	<b>\$119,485</b>	<b>\$33,047</b>	<b>\$513,103</b>
<b>Grand Total</b>	<b>\$442,354</b>	<b>\$52,940</b>	<b>\$390,325</b>	<b>\$422,367</b>	<b>\$86,796</b>	<b>\$1,394,782</b>

Source: IMPLAN<sup>®</sup>

*Visitation during 2015*

Based on information provided by Bubbles Soda Company, along with expenditure data from previous studies, Tables 5 and 6 provide the estimated impact on the Monroe County economy from visitation during 2015.

**Table 5. Estimated Impact on the Monroe County Economy from Visitation during 2015 (2015 Dollars)**

	Direct	+Indirect	+Induced	=Total
Employee Compensation	\$5,075	\$628	\$839	\$6,542
+Proprietor Income	\$151	\$145	\$104	\$400
=Labor Income	\$5,226	\$773	\$943	\$6,942
Labor Income	\$5,226	\$773	\$943	\$6,942
+Other Property Type Income	\$2,436	\$371	\$705	\$3,512
+Tax on Production and Imports	\$1,316	\$96	\$226	\$1,638
=Total Value Added	\$8,978	\$1,240	\$1,874	\$12,092
Output	\$16,486	\$2,460	\$3,025	\$21,971
Employment	0.2	0.0	0.0	0.2

Source: IMPLAN<sup>®</sup>

**Table 6. Estimated Tax Impact from Visitation during 2015 (2015 Dollars)**

	Employee Compensation	Proprietor Income	Tax on Production and Imports	Households	Corporations	Total
Federal Tax Impact	Social Ins Tax – Employee Contribution	\$367	\$31			\$398
	Social Ins Tax – Employer Contribution	\$372				\$372
	Tax on Production and Imports: Excise Taxes			\$76		\$76
	Tax on Production and Imports: Custom Duty			\$35		\$35
	Tax on Production and Imports: Fed Non-Taxes			\$58		\$58
	Corporate Profits Tax				\$169	\$169
	Personal Tax: Income Tax				\$466	\$466
	<b>Total Federal Tax</b>	<b>\$739</b>	<b>\$31</b>	<b>\$169</b>	<b>\$466</b>	<b>\$169</b>
State and Local Tax Impact	Dividends				\$62	\$62
	Social Ins Tax – Employee Contribution	\$3	\$0			\$3
	Social Ins Tax – Employer Contribution	\$15				\$15
	Tax on Production and Imports: Sales Tax			\$598		\$598
	Tax on Production and Imports: Property Tax			\$631		\$631
	Tax on Production and Imports: Motor Vehicle License			\$13		\$13
	Tax on Production and Imports: Severance Tax			\$0		\$0
	Tax on Production and Imports: Other Taxes			\$185		\$185
	Tax on Production and Imports: S/L Non-Taxes			\$41		\$41
	Corporate Profits Tax				\$42	\$42
	Personal Tax: Income Tax				\$149	\$149
	Personal Tax: Non-Taxes (Fines – Fees)				\$21	\$21
	Personal Tax: Motor Vehicle License				\$7	\$7
	Personal Tax: Property Taxes				\$3	\$3
	Personal Tax: Other Tax (Fish/Hunt)				\$3	\$3
<b>Total State and Local Tax</b>	<b>\$18</b>	<b>\$0</b>	<b>\$1,468</b>	<b>\$183</b>	<b>\$104</b>	<b>\$1,773</b>
<b>Grand Total</b>	<b>\$757</b>	<b>\$31</b>	<b>\$1,637</b>	<b>\$649</b>	<b>\$273</b>	<b>\$3,347</b>

Source: IMPLAN<sup>®</sup>

## Conclusion

### *Construction during 2014 – Pennsylvania Economy*

During 2014, the estimated impact on the Pennsylvania economy from construction is the following:

- Total estimated output or economic activity of \$26.6 million
- Total estimated employment of 146 jobs, which can be either full-time or part-time
- Total estimated labor income of \$8.8 million, which consists of \$6.9 million in estimated employee compensation and \$1.9 million in estimated proprietor income
- Total estimated value added of \$12.2 million
- Total estimated taxes of \$2.6 million, which consists of an estimated \$1.7 million in federal taxes and an estimated \$900,000 in state and local taxes

### *Operation during 2015 – Monroe County Economy*

During 2015, the estimated impact on the Monroe County economy from operation is the following:

- Total estimated output or economic activity of \$39.8 million
- Total estimated employment of 84 jobs, which can be either full-time or part-time
- Total estimated labor income of \$4.5 million, which consists of \$3.8 million in estimated employee compensation and \$700,000 in estimated proprietor income
- Total estimated value added of \$6.0 million
- Total estimated taxes of \$1.4 million, which consists of an estimated \$900,000 in federal taxes and an estimated \$500,000 in state and local taxes

### *Visitation during 2015 – Monroe County Economy*

During 2015, the estimated impact on the Monroe County economy from visitation is the following:

- Total estimated output or economic activity of \$22,000
- Total estimated employment of 0.2 jobs
- Total estimated labor income of \$6,900, which consists of \$6,500 in estimated employee compensation and \$400 in estimated proprietor income
- Total estimated value added of \$12,100



- Total estimated taxes of \$3,400, which consists of an estimated \$1,600 in federal taxes and an estimated \$1,800 in state and local taxes