

Economic Impact of Nestle Waters North America on the Siskiyou County Economy

Effects of Water Bottling Plant Operations

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Center for Economic Development

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Introduction

Report Purpose and Scope

This report has been prepared by Dr. David Gallo of the Center for Economic Development (CED) at California State University, Chico. It replaces a report previously completed by CED, with this version involving a more detailed analysis of the available data. The estimates presented here do not differ substantially from those contained in the earlier report. Although this analysis concludes that the income impacts are greater, the employment effects in the earlier report are in the middle of the range estimated here.

The scope of the report is limited to an assessment of the economic impact of the Nestle water bottling plant, proposed for a site in McCloud, California, on the Level of economic activity in Siskiyou County. It does not address any potential adverse effects associated with plant operations. The impact estimates are limited to the effect at full capacity and exclude any potential economic activity generated by construction of the plant.¹

Summary and Conclusions

It is estimated that the water bottling plant proposed by Nestle for the McCloud site will, when it reaches full capacity, generate additional income of \$23 to \$31 million to residents and businesses in Siskiyou County. That additional income is the sum of direct payroll at the Nestle plant, the secondary impact of input purchases by Nestle from local suppliers (indirect), and the effect of the additional spending on the income of employees and owners of local businesses (induced). The estimated employment impact is between 477 and 502 full and part-time jobs. That includes the direct employment of 236 individuals at the bottling plant; 169 additional employees at businesses supplying goods and services to the bottling operation, and between 72 and 97 new employees in businesses selling to households.

Limitations of the Study

The purpose of this report is to quantify the gross effects of plant operation on Siskiyou County income and employment. If the presence and operation of the facility were to have any adverse impacts on local economic activity, those impacts would need to be deducted from the gross measure in order to arrive at an estimate of the net effect.

¹ Plant construction cost is estimated to be \$31 million in 2004 dollars. While it is unlikely that the contract for plant construction will be awarded to a local firm, there will probably be some local employment generated during the construction phase. Grading, paving, and concrete work are likely to be done, in part, by local labor. In addition, some materials such as fill and sand and gravel will probably be purchased within the county, creating additional economic activity. Nevertheless, no local income or employment are attributed to plant construction.

Role of CED and the Report Author

The Center for Economic Development and the author of this document wish to make it clear that, in preparing this report, they are not endorsing the project. This study was funded by the Siskiyou County Economic Development Commission and its purpose is limited to providing the best possible information regarding the direct economic impact of the project on the county economy. We recognize that there is opposition to the project within the community, but hopefully, residents will find the information contained in this report useful in coming to a decision regarding whether or not to support its going forward. This component of the economic impact is clearly not the only factor in this decision.

Methodology

Data Sources

The data used in the analysis was provided by Nestle. Direct employment estimates (236 jobs) for the plant were based on their operations at their Mecosta plant and the provided data included a detailed breakdown of jobs and salary scale. Total operating cost was estimated to be just over \$80 million annually, with employee compensation of \$9.5 million.

IMPLAN

IMPLAN is an input-output model (I-O) that separates the economy into 509 industrial sectors, classifying each according to the primary product or service it provides. The transaction matrix is the model that estimates impacts. The transaction matrix contains the purchases and sales that occur among the various sectors. The column entries are the purchases made by a particular sector from all other sectors included in the model. The row elements are the industry destinations of the sector's sales. The I-O model permits assessment of the total impact of an initial change in income or expenditures. (MIG 2007)

The total impact is the sum of the direct, indirect, and induced impacts. The indirect impacts are the result of purchases (by the sectors directly affected) from local industries supplying inputs. The induced effects are due to the spending of additional income earned through the enhanced business activity and added income generated by the direct impacts. The model output includes estimated impacts on output, income, employment and state and local taxes.

Application of the Model

Typically, estimation of the total economic impact of a new industry is accomplished by entering gross sales (direct output) into the IMPLAN model. The model then estimates indirect, induced, and total output. These estimates then provide the basis for the local income and employment impacts.

In this case, the usual approach cannot be used since Nestle provided data for direct employment and operating expenses, but not for gross sales. Entering the 236 direct jobs into the soft drink and ice manufacturing sector (sector 85) of the model yields estimated gross revenues of \$127.5 million and direct employee compensation of \$16.1 million. However, employee compensation data provided by Nestle implies a total payroll of \$9.5 million. Thus some adjustment to the model output is necessary.

Estimated employee compensation in the IMPLAN model is based on the cost structure of other water bottling plants located in Siskiyou County. Existing operations provide employment and wages per dollar of sales that may not be identical to what can be expected at the Nestle plant. The larger size of the plant may result in economies of scale, allowing the bottling of more water with fewer employees. While this difference doesn't affect direct and indirect income and employment, it does affect the induced components.

Local Income and Employment Impacts

For the purpose of this study, the local income impact is defined as direct employee compensation plus indirect and induced value added (total income). Direct income impacts are limited to employee compensation since, as a corporation owned by outside stockholders, the other components of income are likely to accrue to non-residents. The IMPLAN model provides estimates of induced income and employment of \$6.6 million and 122 jobs, respectively. With 236 direct and 169 indirect jobs, that brings the total employment impact to 527. Removing the non-wage component of direct income from the spending stream reduces the induced employment estimate to 97 jobs, and total employment to 502 jobs. The estimated induced component of income is \$5.3 million and total local income is \$30.9 million

If the data provided by Nestle is used in place of the IMPLAN estimate for direct employee compensation, then the induced components of employment and income are reduced further. Using the Nestle data, estimated induced income and employment are reduced to \$3.9 million and 72 jobs respectively. The estimated total employment impact is 477 jobs, while the effect on local income is estimated to total \$23.0 million.

Table 1 includes the income and employment impacts for the three cases presented here: Case 1, the unaltered IMPLAN estimates; Case 2, the estimates limiting direct income impacts to the IMPLAN model's employee compensation figures; and Case 3, those using the payroll estimates from Nestle.

Table 1: Direct, Indirect, Induced, and Total Impacts on

Siskiyou County Income and Employment

	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
<i>Income (Millions of 2004 Dollars)</i>				
Case 1	\$22.74	\$9.57	\$6.63	\$38.94
Case 2	\$16.06	\$9.57	\$5.26	\$30.89
Case 3	\$9.50	\$9.57	\$3.91	\$22.98
<i>Employment</i>				
Case 1	236	169	122	527
Case 2	236	169	97	502
Case 3	236	169	72	477

Conclusions

Economic Impact vs. Resident Benefits

It is important that the reader not confuse the total economic impact of the Nestle facility with the economic benefit received by existing residents. Economic impact and resident economic benefits are equivalent only in the case where all new jobs and income accrue to existing residents. In order to illustrate this point, assume that all of the in plant jobs go to individuals initially residing outside of the county. Then, for case 2, resident employment and income are increased by no more than 266 jobs and \$14.83 million, respectively.²

However that does not include the added impact of the government services required by new residents. Adding this effect to the IMPLAN model increases the induced component of the local impact by 104 jobs and \$5.7 million in income. Thus, if all plant jobs are taken by non-residents, the Siskiyou County employment and income impacts (and resident economic benefits) are estimated to be 370 jobs and \$20.52 million, respectively.

Any New Water Bottling Plant in Siskiyou County vs. the Nestle Plant at the McCloud Site

It must also be understood by the reader that the economic impacts assessed in this report are estimates of the increased jobs and income that will result from building and operating a water bottling plant, of the scale proposed by Nestle, within Siskiyou County. The impact estimates are not specific to the proposed site and would be the same no matter where in the county the plant was constructed and the source of

² The maximum employment and income impact is based on the implicit assumption that all indirect and induced jobs and income go to existing Siskiyou County residents.

water obtained. It is the impact of this plant only if there are no alternative sites with sufficient water resources available within the county.

Geographic Scope of the Analysis

The impact analysis completed for this report is for Siskiyou County as a whole. If the analysis was done for the town of McCloud, the location of the bottling plant, the conclusions might be very different. As is the case with any large facility, there are those who gain and those who lose. The operation of the plant will generate a certain amount of noise and traffic, adversely affecting those who moved to the area for the peace and tranquility the town offers.

On the other hand, plant operation will provide economic benefits in the form of increased spending at existing local businesses, and will likely lead to the establishment of new ones as the level of local economic activity increases. Even if few plant employees live in the town, some will buy lunch, coffee, or other items, leading to added income for local business. Certainly, the increase in local income will be small relative to the estimated total employment and income impacts for Siskiyou County as a whole, but it will not be trivial.